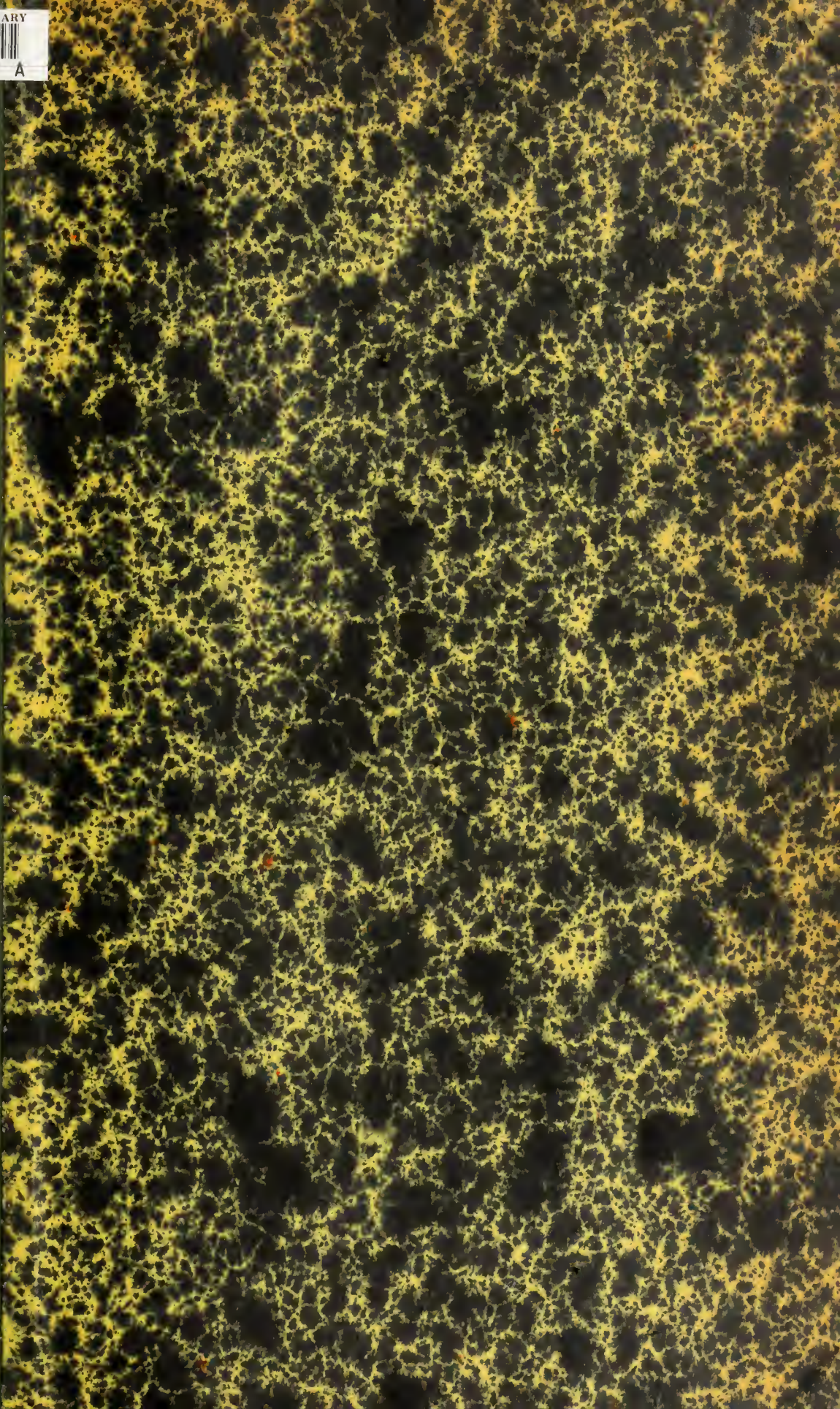


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The Journal

of the

South Carolina Medical Association

VOL. XXX.

GREENVILLE, S. C., JANUARY, 1934

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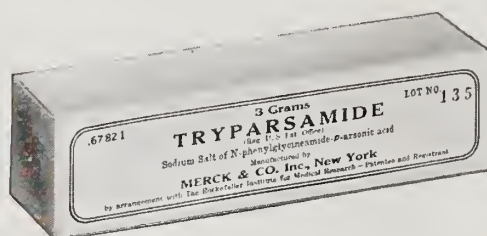
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EDITORIAL

THE EIGHTY SIXTH ANNUAL SESSION OF THE STATE ASSOCIATION TO MEET IN CHARLESTON, MAY 1, 2, 3. TITLES OF PAPERS WANTED

The Scientific Committee of which Dr. Kenneth M. Lynch, Charleston, is the Chairman desires to have titles of proposed papers to be read before the Association sent in at an early date. Essayists are requested to give a brief summary of the nature of their papers in order that the committee may know just where to place them on the program.

It is the desire of the committee to have the names of any who propose to have scientific exhibits and the details of same.

In the event that any titles come into the office of the State Secretary they will be forwarded promptly to Dr. Lynch. The House of Delegates will convene on the night of May 1 and it is proposed to limit the scientific program to a number that can be read and discussed by noon of the second day of the scientific session.

Further details will be published following a meeting of the scientific committee and the officers of the State Association the latter part of January.

THE McLEOD INFIRMARY BULLETIN

We are glad to welcome to our desk a creditable new bulletin to be published quarterly by the McLeod Infirmary, Florence, S. C., Dr. Julian P. Price, a member of the Staff of the Infirmary, is the Editor. Quite a number of interesting case reports appear in this initial number. Some of the papers have been read before county medical societies. Presumably it is the intention to put out a strictly scientific publication. There is no advertising, no news items, no editorials or other matter. The first issue has twenty eight pages. It takes great faith to start any kind of new publication now but to the medical profession of Florence obstacles only offer a challenge for greater development and so we look for a marked success of this new venture.

MARLBORO MEETING SURPASSES ALL PREVIOUS EVENTS

The annual meeting of the Marlboro County Medical Society called the New Year's meeting was held January 12 at Bennettsville under the guiding inspiration of President Moore, Secretary Strauss and Councilor Jennings. Although one of the worst days of the year from the weather standpoint the attendance registered around 150. The program as is usually the case was so rich in scientific vitamins that nothing could keep the big crowd away. Professors from great medical schools brought the latest developments of medicine and surgery from several southern states. High officers of State Medical Associations in this and other states added tremendously to the interest of the occasion. In fact, no post graduate course anywhere has more for the general practitioner in the same number of hours spent as does this county society meeting. Not only the members of the County Medical Society, but the whole town of Bennettsville seem to be proud of this time honored institution. The banquet is always a brilliant feature. The program as sent out appears elsewhere in this issue of the Journal.

PAYMENT OF DUES. ANDERSON COMES FIRST

The Anderson County Medical Society is the first County to send in dues in the New Year. There is no good reason why this plan may not be followed by many other county societies. Our observation has been that if properly approached members are glad to make this con-

tribution early to the furtherance of organized medicine. The responsibility really rests with the Treasurer of the County Society for the most part as to how early the dues may be collected after the beginning of the year. The fiscal year closes December 31 and the dues become due on the first day of January following rather than at the time of the meeting of the State Association. There is evidence that business conditions have improved and to some extent the medical profession enjoys better collections than for two or three years.

THE VITAL STATISTICS BUREAU

A thoughtful paper appears elsewhere in this issue by Dr. Woodward on the great value of vital statistics. We are fortunate in having a splendid organization in this department of the State Board of Health and one which promises to be of great service to the profession by virtue of plans for its enlargement. While it may be some trouble for medical men to make reports to the Bureau year in and year out there is no other way in which the State and the nation can secure the invaluable information the medical profession holds in its hands. We bespeak the continuing loyalty of every doctor in South Carolina to the end that the Bureau of Vital Statistics of the State Board of Health may be second to none anywhere in the world. It is of tremendous moment that the real facts of our morbidity, birth rate and death rate be available not only for scientific purposes but for the guidance of those who are interested in promoting the development of the great resources of our state along many lines.

ORIGINAL ARTICLES

*THE VALUE OF VITAL STATISTICS

By Martin B. Woodward, M.D., Assistant Registrar, Bureau of Vital Statistics, Columbia, S. C.

More than 50 years ago—Oct. 31, 1880—Dr. J. F. M. Geddings waxed eloquent upon the subject of Vital Statistics. He was a member of the Executive Committee of the State Board of Health from Charleston. Said he, "The Medical Committee of the House of Representatives reported unfavorably on a Bill to organize a system of Vital Statistics on the ground that it would give the country doctor too much trouble and that the U. S. Government had already undertaken a similar work. As a matter of fact the U. S. Government merely compiled Mortality Statistics for one year in connection with the tenth census." Dr. Geddings further stated, "that the Chairman of the Medical Committee of the House of Representatives is certainly not in accord with the active medical men of his day, when he assumes that these gentlemen would, on so trivial a ground, frustrate the great object of a registration of Vital Statistics."

"There may be some physicians who would bear him out in this assertion, but your Board believes that the medical men from the country districts, who have, under all circumstances, proven their patriotism, in war as well as in peace, will not shrink from this small encroachment upon their time, when their attention is drawn to the valuable results to the material prosperity of our State, which a proper registration of births and deaths would produce."

These are strong words. However, they apply just as truly today as they did 50 years ago. Let us remember that Vital Statistics is of immeasurable value to medical science in the matter of etiology and prognosis of our endemic diseases. We are hearing much nowadays about such diseases as Undulant Fever, Tularemia and Typhus Fever. Certainly they are not new diseases, but until we could secure

information as to the geographical location of these diseases and the number of people affected we could not begin our work of controlling them. Back in the 70's and 80's—and even later in other sections of the country—there was much ado about Yellow Fever and Malaria. South Carolina was classified as a dangerous State in which to live because of the great abundance of both of these plagues. The fact was that there was but comparatively little Yellow Fever and not an undue amount of Malaria.

In the first report of the State Board of Health Dr. Geddings quotes Dr. Chaille as follows, "Public Hygiene derived its birth from, and depends for its future progress, on Vital Statistics, and every argument which favors the establishment of Boards of Health, is an argument on behalf of Vital Statistics, for while a Board of Health without them is as helpless as a man without eyes to guide him, so without Vital Statistics the public is destitute of the only valid test of the value of a Board of Health. If a human being is much more valuable to the State than is a bale of cotton, then statistics of the human crop would prove much more valuable than statistics of the cotton crop; and yet every newspaper can and does furnish statistics of the cotton crop, such as no man can now procure as to our human crop. Vital Statistics furnish unerring lessons as to health, prosperity and morals of the people; they teach the influence of marriage on illegitimacy and morality; the fecundity of a whole people and of the races thereof; the vital force of children; the duration of life, with its expectations and value for all ages and races; the influence of meteorology, occupation, locality, in generating disease and improving health, and thereby the removal of unfavorable conditions, always found, even where least expected; and the approach of morbidic storms, by ignorance of which negligent cities, and even nations, have been destroyed. The only foundation of life insurance, Vital Statistics serve alike to guide the resident and the immigrant, the capitalist

*Read before the Ridge Medical Society, December 18, 1933.

and the laborer, the politician and the statesman, the moralist and the scientist. Ignored and disparaged by the average American legislator, they have been advocated and supported by Napoleon and Thiers, by Bismarck and Cavour, by Gladstone and Disraeli; and their establishment has become a test of the degree of civilization reached by a people and their rulers."

Bear in mind that while these remarks were made in an effort to persuade the General Assembly to pass an act providing for the recording of morbidity, births and deaths, thus securing valuable and necessary basic data on which to begin, they are just as applicable today—53 years later—as then in order that we may continue to secure information that is far more valuable than any figures on corn, cotton or Poland China pigs that were raised on peanuts or gleanings from the woods.

This would indeed be a proper place to end this paper since the above statement sums up the situation in general completely. However, let us examine a few figures with reference to your own counties.

	Edgefield	Lexington	Saluda
Population -----	19,326	36,494	18,148
Birth Rate -----	23.4	14.9	21.3
Death Rate -----	10.4	9.8	7.9
Maternal Mortality --	8.9	7.8	10.3
Infant Mortality ----	48.7	78.0	49.0

Compare these figures with those of the State as a whole. Birth Rate 22.9, Death Rate 11.1 (white 8.85, colored 13.43). Maternal Mortality 77.9 per 10,000 live births; Infant Death Rate 88.4 per 1,000 live births. It will be seen that roughly there is one maternal death for every 10 infant deaths. Apparently this proportion holds for Lexington while Edgefield and Saluda lose, in proportion, twice as many mothers. It is obvious that we are not getting as complete reports from the last two counties as from the former.

From the State as a whole little more than one third of the physicians who treat communicable diseases make reports to the State Board of Health. Thus of over 800 physicians who receive cards for reporting such diseases only a little more than 200 return them. Here-

fore we have not sent these cards to specialists who probably seldom treat such cases. It is probable this percentage of doctors reporting in South Carolina compares fairly well with many other states. One State, however has regular reports from over 95 per cent of its physicians.

Dr. Geddings has been quoted freely since he expressed the needs and value of complete records so tersely and clearly that his meaning could hardly be misunderstood. Also his remarks are applicable today. We did not have a State Bureau of Vital Statistics for 35 years after this gentleman's plea for one. Since its organization on Jan. 1, 1915, the constant aims of the Bureau have been to collect evaluate and make available data relative to the health of the State, the progress being made by the medical profession in combatting disease and to furnish information that will, as one physician has said, "Make South Carolina a healthier and happier place in which to live."

South Carolina continues to be one of the States that has very high maternal death rate. The United States has the highest maternal death rate of any civilized nation in the world. If we had complete reports of births and deaths this State would promptly make a much better showing. The facts that I have given you are known over the world wherever any interest is taken in Vital Statistics.

You and the other physicians of the State may change this whenever you wish. The Bureau of Vital Statistics merely records and publishes what you do—or fail to do—in the figures it gathers. Under the law governing medical practice in South Carolina only a doctor of medicine may treat the sick. Our State furnishes a school for the training of men to become physicians. Half of the counties of the State have provided health units to be of assistance to practicing physicians in the prevention of the spread of disease—not for treatment. The State Board of Health is a child of the State Medical Association and in addition to the function of recording the state of health of the people of the State furnishes aid in the form of diagnostic facilities in the laboratory, sera, vaccines and other biologicals. In return for all of this educational and professional assistance at your disposal you are simply asked

to report cases of communicable diseases through the County Health Department or directly to the State Board of Health and to report births and deaths of patients in your practice.

As soon as the State Board of Health has secured adequate personnel it is proposed to supply the medical profession regularly with morbidity mortality and other statistics of especial interest to the profession in the various sections of the State.

A REVIEW OF PEPTIC ULCER

By John M. Preston, M.D., Lancaster, S. C.

Surprising as it may seem, an article in the *Journal of the A. M. A.* of June 28, 1930 says that peptic ulcer occurs in at least 10 per cent of the population of our country. Such a common thing as this demands more recognition and more study by the general practitioner as it is he who must see these cases first and diagnose them early. Treatment may then be instituted under his own care or that of another as may seem desirable.

Miller(1) has found that the duodenal ulcer outnumbers the gastric in the ratio of four to one. The male sex predominates in about the same proportion, though acute gastric ulcers are fairly common among nervous women between the ages of twenty and thirty. On the other hand the chronic duodenal ulcer is far more common among men between thirty and fifty. Brown(2) gives the incidence as 1.3 per cent in North America, 5 per cent in England and Germany, and 16.7 per cent in Denmark.

Peptic Ulcer is not an old condition in medical history. It was described first by Cruveilhier(3) in the third decade of the nineteenth century. A little later Rokitsky(4) gave us a much fuller work on the subject and we have been studying and developing along these lines ever since, with some surprising and unique reverses in the trend of treatment.

In reviewing the literature I have found listed by the various authors twenty-five possible primary and six secondary causes. Eleven men list nervous conditions as the chief cause of peptic ulcer. This cause leads the list with

diseases of the mucosa or its vascular supply as runner-up, being mentioned by nine of the authorities consulted. Dietary indiscretions and chemical causes each score seven notations, with trauma getting six. It came as a definite shock to the writer that autodigestion was mentioned only five times; about half the number given to nervous causes and exactly the same as that of bacterial infection with a specific strain of streptococcus. Saunders isolated a specific streptococcus from nineteen resected peptic ulcers and found its agglutinogenic and antigenic identity with similar strains producing ulcers of skin and mucus membrane easily established. Likewise its identity with strains from foci of infection, appendicitis and cholecystitis was demonstrated. Rosenow produced acute and chronic ulcers in the stomach of animals by the intravenous injection of certain strains of streptococci. These ulcers were found to contain organisms identical with those introduced into the vein. Toxic causes, low resistance, and hyper-acidity were mentioned four times with the following fifteen causes getting two or even one vote: pylorospasm, anaphylaxis, vitamin deficiency, overwork, hyperperistalsis, alterations of gastric rhythm, disorders of gastric function or innervation, peritoneal irritation, chronic gastritis, excessive carbohydrates, food idiosyncracies, heat, climate, race, and heredity.

Among the secondary causes the leader gets the same consideration as the chief of the primary causes. Focal infection was mentioned by eleven men as being a definite contributor to the causation of peptic ulcer. Other secondary causes were appendicitis, cholecystitis, oral sepsis, burns, tobacco, and alcohol. As is readily seen from this list the majority of them are, after all, foci of infections in different localities.

The causes of peptic ulcer, therefore, are many, and from this very fact we can well infer that we are not yet at the point to say just exactly what does cause this type of lesion. It seems better to say that we are not convinced that the etiology of ulcer, in general, can be laid at the door of any one thing, but that the condition seems to be rather a combination of events, resulting in this unfortunate situation. Philip K. Brown(2) says, "The various the-

*Read before the Fifth District Medical Society, Lancaster, S. C., November 7, 1933.

ories of the etiology of peptic ulcer are open to criticism and we can safely present only certain generalities. . . ."

Quoting H. R. Hartman(4) we have, "Ulcer is not the result of a certain process, but a combination of events."

Danzier(5) says, in the Southern Medical Journal, "Gastric ulcer is not a local disease. It is a generalized systemic disturbance with local manifestations in the stomach."

Lahey(6) reports in the Journal of the A. M. A. that "the cause of gastric and duodenal ulcer is still unknown. The variety of methods by which it may be produced in animals and the fact that animal ulcers are not characterized by the same features (intractability) as are human ulcers, leaves one still at a loss as to the true cause of the lesion." Our English friend Snorf(7) says: "The actual cause of gastric and duodenal ulcer is not known. We believe that a certain sequence of events carries through the history of an ulcer which in consequence relates its pathogenesis to several factors."

Lanphere(8) tells us that the "cause of ulcers of the stomach and duodenum as they occur clinically has not been satisfactorily established. It is probable that there are many factors which predispose to their formation."

Uncertain as is the etiology of peptic ulcer there are, however, certain criteria by which we can usually recognize its presence. In a clear-cut case everything points the same way: symptoms, high acids, cap defect, relief with two-hourly feedings, lesions at operation, and cure after gastroenterostomy, but in puzzling cases there are strange contradictions in the evidence.

The subjective symptoms of peptic ulcer are fairly clean-cut, and in most conditions are of great importance in making a diagnosis. When one hears that for several years there have been periodic attacks, lasting four to six weeks, of pain in the epigastrium after meals, that some foods cause it more commonly than others, that alkalis or eating relieves it when it comes late after meals, one can suspect at once duodenal or gastric ulcer. The history of sudden weakness with or without nausea, of tarry stools, or the vomiting of blood, and finally the occasional relief from change of position is of decided value in the diagnosis.

The location of pain produced by pressure does not distinguish between ulcers and cholecystitis. It is well to remember, therefore, that ulcers can exist even in the presence of cholecystitis and can even simulate the symptoms to a great extent.

In acute ulcer we may expect to find fever and glycosuria, both of short duration, and motor disturbances of the stomach. Gastric distress over a long period, acute agonizing pain with a restless patient tossing from side to side, with knees and thighs flexed, with board-like rigidity of the abdomen, slow pulse of good volume, normal or subnormal temperature, taking short costal breaths, and appearing seriously sick, indicates immediate operation.

Among the findings of chronic ulcer we elicit, in addition to those mentioned above, many of the following: acid eructations, burning sensations, the hunger pain at about 2:00 A. M., hemorrhage, occult blood in the stools, undernourishment (in children); absence of pain when the stomach is normally empty, finding of foci of infection, and deep tenderness. Of course no one ulcer case will evidence all this list of symptoms in its entirety, but they are characteristic enough to make a workable diagnosis for the average clinician.

Up to this point we have not called in the X-ray for assistance or confirmation. The roentgenologic findings are fairly definite: diminished or absent peristalsis, or a break in the peristaltic wave, filling defect, cap defect, mucosal erosion, niche or penetration, perforation, etc. The presence of a filling defect is not necessary, however, to establish the roentgen diagnosis of a gastric lesion, though the cap defect is very suggestive. A six-hour residue is very important, too.

"It is fairly easy to differentiate diseases of the gastro-intestinal tract from other conditions, but it is quite difficult to tell in what part of the tract an affection may be present. The syndrome that has been designated "irritable bowel" may simulate peptic ulcer very closely, even in the X-ray examination. While ulcer presents a characteristic pain this is not present in irritable bowel. Also it may be seen, after treatment has been begun, that the patient does not do well on ulcer treatment if he has irritable bowel."(9)

To make a definite diagnosis one should develop a definite routine of which the following suggestions might well be a part: take a complete and careful history, make a careful physical examination searching particularly for foci of infection, do a gastric analysis, examine the stools for occult blood (after the patient has been on a meat-free diet for three days), have X-ray examination including fluoroscopy, still plates, and a six-hour residue examination. A Graham test of gallbladder function is not contraindicated.

The treatment of peptic ulcer is variable. For some time it was considered a surgical entity entirely. Then the pendulum swung to the other extreme and it was regarded as almost uniformly medical. At the present practically all clinicians as well as surgeons recommend an adequate trial of medical treatment and then a resort to surgery if the results have been unsatisfactory.

Surgical failures in the early days were due to a number of causes, among which we may list: gastro-enterostomy in the absence of intrinsic trouble in the stomach, faulty technic, failure to do thorough operation (leaving chronically infected gall-bladder, appendix, etc.), formation of new ulcer beyond stoma, reactivation of partially healed or unhealed ulcer, and carcinomatous changes in gastric ulcer not removed at the time of the original operation.

Some reasons for failure of medical treatment might include: lack of co-operation of the patient, failure to adequately instruct the patient, failure to continue treatment long enough, location of the ulcer, and inadequate rest. The simple, uncomplicated peptic ulcer can be cured by medical treatment in the vast majority of cases.

Medical cases are treated by rest in bed, an icebag on the epigastrium to lessen motility, frequent feedings of a bland diet, neutralization of excessive acidity, removal of stagnant gastric juice once a day, and removal of foci of infection.

Indications for surgical intervention include: perforation, repeated hemorrhages, suspected malignancy, x-ray evidence of perforation, duodenal obstruction, hour-glass contraction in the stomach, and failure of good results with medical treatment.

I shall not attempt to go into detail in the matter of diet in the medical treatment of peptic ulcer. There are a number of standardized diets available to all who wish them, the more common of them being the Sippy, Lenhartz, Leube, Smithies, and Harris. Any one of these should be adequate if adhered to with all strictness. Weintraub suggests the addition of olive oil and tincture of belladonna.

Suffice it to say in this treatise that the diet has been for some time the most important part of the treatment. It should not stimulate gastric secretion, and should consist of those foods which will leave the stomach rapidly and so give the least amount of irritation to the mucosa. All foci of infection should be removed, heart and kidneys should be attended to, and any existant hyperthyroidism should be treated surgically.

The follow-up treatment, especially as to diet, should be continued for at least six months according to Hartwell and Felter(10), and even then they admit that the patient should not be allowed to eat just anything he wishes. Vanderhoof(11), of Richmond, recommends a line of treatment covering a period of two years. This, he says, must be observed rigorously if any permanent cure can be hoped for. Most cases of recurrence after medical treatment as well as surgical treatment can be traced directly to the laxness of after-treatment. Horsley(12) says: "It seems probable that the vast majority of cases of peptic ulcer can be cured either by medical treatment consisting largely of regulation of diet, or by operation. After any stomach operation medical treatment, particularly regulation of diet, should be carried out for at least several months."

The latest development in the treatment of peptic ulcer is by the intravenous route. There is much evidence to support the theory that non-specific foreign proteins diminish gastric contractions and increase the vascularity of the stomach wall. These two factors are the important part of the new treatment of peptic ulcer. The gastric acidity has been changed in some cases and remained the same in others which have been treated by this method and the clinical results were practically uniform, so it has been assumed that acidity plays no great part in the chronicity of the ulcer. Foreign

proteins stimulate the defensive powers of the body and combat the foci of infection as well as any specific strains of streptococci which might be a causative agent.

Lipoids and lipins in association with proteins serve a double purpose. Experiments have shown that this combination obviates the undesirable shock reactions which often result from the use of proteins alone, and thereby interfere with the treatment. It has been shown, further, that certain lipoids and lipins possess distinct immunizing properties and when employed with non-specific proteins materially increase the general resistance toward infection. Emetine is used in combination with the above mentioned agents and is slowly accumulated in the gastro-intestinal mucosa and liver, and is active in weak dilutions against a variety of micro-organisms. Its bactericidal effect, though slowly developed, is persistent. Preparations are on the market now combining these ingredients.

Wide clinical experience with this form of therapy has been reported by Pitkin(13) and his co-workers in the American Journal of Surgery, June 1931. He reported at that time, the treatment of 310 cases, 127 of which were his personal clients. This series included 111 men and 16 women. In 9 the ulcers were acute and of less than six months duration, while 118 of them were of longer duration. Gastric ulcers were present in 6 cases and duodenal in 121. Surgical operations had been performed previously in fifteen cases without permanent relief. The diagnosis in the series reported were based on the history, gastric analysis, the use of test powders, and the roentgenologic examination of the stomach and bowel. The results of the intravenous injection of this preparation were as follows: pain was relieved after the first injection in 76 cases; after the second in 16 cases; after the third or fourth in 20; after five or more injections in 6. In 5 cases the pain was alleviated, but a sensation of heaviness remained, while in 4 no improvement occurred.

As described by Pitkin(13), the technic of administration is no more difficult than any intravenous medication. As less pain is produced with a fine 25 gauge needle, it is preferred to the larger 21 or 22 gauge so frequently used

for intravenous work. If for any reason the median basilic or median cephalic vein cannot be used, the solution may be injected intramuscularly into the arm or in the buttocks. Subcutaneous injections are inadvisable because of the possibility of prolonged and severe local reaction. Routinely the injections are made every third or fourth day, for six doses, if it is necessary to continue treatment that long. After that period the interval between doses is increased to one week. If the pain is very severe or the bleeding intense then the injections may be made every day for a short time.

It seems to have proven best to make the injections when the stomach is empty as the effect is almost immediate and if given right after meals vomiting may occur. Occasionally the patient complains of a slight feeling of light-headedness or nausea. These symptoms are of short duration, however, and should occasion no alarm on the part of the physician. Bicarbonate of soda, drams one, given about five or ten minutes before the injection will usually prevent nausea or vomiting in cases where dehydration or acidosis exists. The milder cases are relieved after the first dose, but the more severe ones or those with chronic lesions are not usually relieved until after the third or sometimes the fourth dose. Six injections at intervals of three or four days usually suffice for the milder cases. Patients who have suffered for a long time, or those with marked gastric or duodenal lesions may require eight doses. The maximum number of injections for one dose is ten. If a second course should be necessary six to eight weeks should intervene.

As for the dietary regimen consistent with this type of treatment bland foods should be given throughout. The diet need not be as restricted as the Sippy or other diets, but if hunger pains are troublesome during the first week or ten days, between meal feedings of milk or milk and eggs should be given at 10:00 A.M., 3:00 P.M., and 9:00 P.M. As soon as the pains have stopped these additional feedings may be discontinued. During the first three weeks the diet should consist of milk, cream, buttermilk, malted milk, milk and egg, soft boiled egg, bullion, broths, barley, potato and celery

soup, well cooked rice, farina, gruels, cream of wheat, (no oatmeal), corn starch custards, rice puddings, bread puddings, baked or mashed potatoes, plain vanilla or chocolate ice cream, ices, and plain cake. Tea, coffee, and alcoholic beverages should be omitted.

After the third week the meals may include fish (baked, broiled, or boiled, not fried), white meat of chicken, peas, squash, mashed carrots, asparagus, fruit juices, and stewed fruits, with the exception of berries. After the fifth week the diet is unrestricted with the exception of alcoholic beverages, preserved meats and fish.

By this method of treatment complete relief is obtained in from three to six days in the great majority of cases, and the patient does not suffer the loss of time, incapacity, nor the hospital expenses to which he was subjected under the former medical or surgical types of treatment.

Conclusions

1. The etiology of peptic ulcer is not definitely established.
2. The diagnosis can be pretty definitely made out by modern methods.
3. Peptic ulcers may be acute or chronic.
4. Surgical treatment alone has proven a disappointment. Medical treatment is taking a new step—the intravenous.
5. Intravenous treatment seems to offer the quickest relief, easiest cure, and most satisfactory results.

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ARACHNOIDISM OR SPIDER BITES

By N. O. Eaddy, M.D., Pamlico, S. C.

The medical texts with which I am familiar devote very little attention to the subject of spider bites. Attention is herein given this condition, especially the bite of the black widow spider (*Latrodectus mactans*). Two cases that I treated are reported, a third that I observed is considered, and several of which I read are mentioned.*

Stitt, 'Diagnostics and Treatment of Tropical Diseases' writes as follows,**

"Spiders belong to class Arachnoidea, order Araneida. There are numerous families divided into various genera. As a rule spiders secrete a venom which is capable of poisoning the small animals used as food but it is only in rare instances that the venom is poison for man. It must be remembered that individual idiosyncrasies make one person susceptible to spider or other arthropod bites while others do not suffer."

..... "Experiments have shown that most of the common spiders not only are unwilling to bite, but even when almost forced to do so, are unable to penetrate other than the most delicate human skin. Even then the bite has only the effect of a pin prick."

"Certain species of the genus *Latrodectus* produce systemic symptoms rather than local ones." "In the U. S. a venomous spider, *Latrodectus mactans*, which is black, with one or more red spots on the dorsal abdomen, can produce more or less serious symptoms and possibly, but certainly most exceptionally, fatal results in man. The symptoms caused by *Latrodectus* are of a nervous type although local signs at the site of the bite may also be present."

Quite contrary to the opinion one who has never encountered a bite by the black widow spider is apt to form, my experience has been that there is no condition in which the patient is apt to appear more agonizingly ill.

Case number 1. A white male farmer about 30 years old came to me complaining of agonizing pains throughout the back and abdomen. He stated that he had been bitten by the black widow spider a short while before, at which time he experienced a mild sting at the site of the wound. Back and abdominal pains soon developed and rapidly became unbearable. The patient was in evident misery, constantly moaning and walking about (as though he had kidney colic) or rolling on the couch. Respiration was normal, the pulse slightly elevated, the temperature not taken. There was some rigidity of the abdominal muscles. There was no nausea or vomiting. He was given 1/4 grain morphine sulphate with 1/150 atropine sulphate without relief and this dose was consequently repeated. The patient then became drowsy but was easily aroused or even waked spontaneously at intervals and complained bitterly of the pain in the back and abdomen. The patient required occasional hypodermics of morphine for about 36 hours after which the pain gradually subsided. There was no complaint of dysuria, urinary retention, or a rash. Apparently there were no sequellae.

Case number 2. A white housewife about 41 years old sent for me shortly after dark one night. She was complaining of unbearable pain throughout the lumbar, sacral, and abdominal areas and, also, (this seems exceptional) of a like pain the chest, apparently worse in the pectoral muscles; of nausea; and of a frequent desire to urinate. The patient stated that while picking peanuts late that same evening she felt a slight sting on her leg and, investigating, found a black widow spider in her underclothes. In a few minutes cramp like pains began to appear in the back, then in the abdomen, then in the chest. These pains soon became so dreadful that she could not remain still and she sent for a doctor. About an hour after the bite, she became nauseated and made frequent unsuccessful efforts to vomit. About the same time she began desiring to urinate frequently but could pass only a small amount of urine at

each effort. Physical examination revealed a somewhat obese, well-developed, healthy looking white woman in middle life tossing about in bed, complaining of pain described above repeatedly declaring that, "I can't stand it any longer." The pulse rate was 90 per minute, the temperature 99 degrees F., the respiratory rate 24 per minute. No muscular rigidity could be elicited. In view of previous experience an initial dose of 1/2 grain morphine with 1/75 grain of atropine sulphate was administered hypodermically. The patient soon quieted and became drowsy but was easily, even spontaneously, roused, each time complaining of the unbearable pain in the back, abdomen and chest. The nausea and desire to urinate so often subsided. Morphine, 1/4 grains per dose, was given orally at irregular intervals for the next 60 hours during which time the pain gradually subsided and all symptoms disappeared with the exception of a slight reddened area at the site of the bite which lasted about two weeks. There were apparently no sequellae.

Case number 3. (I only observed this case: he was treated by another doctor.) A white male farmer about 50 years old was complaining of severe pains in the back and abdomen. He stated that he was bitten on the penis that morning by a black widow spider while using an outside privy, experiencing a slight sting at the time at the site of the bite. The patient was rolling on the floor and begging for relief. I understand he was given a hypodermic of hyoscine, morphine and cactine without relief and that the hypodermic was repeated giving partial relief. He was subsequently given several doses of morphine and gradually the pain subsided.

Dr. W. C. Bostic, Jr. reported 4 cases in which the symptoms were like those of the above described cases except that they presented marked abdominal rigidity and a moderate rise of temperature. One of his cases had bradycardia, one had a leukocyte count of 12000, one had to be catheterized twice and one had an urticarial rash relieved by adrenalin.

Dr. W. Fgleston reported cases **** in which, like the above, the predominant symptom was pain in the back and abdomen, usually with rigidity of the abdominal muscles. Both

of the above doctors noted that the rigidity was boardlike.

There is a record of 12 deaths having been caused by the black widow bite ***** with the probability that another resulted from a like bite*****

Summary

Medical texts with which I am familiar devote little attention, and that not very serious, to spider bites. Attention is called to the seriousness of the bite of the black widow spider (*Latrodectus mactans*). Several cases due to the bite of this spider are discussed. Statistical data that such a bite may prove fatal are submitted. The liability of attributing the pathology to an acute abdominal lesion is again mentioned. There are five characteristics that these cases almost invariably present: (1) a history of having been bitten by the black widow spider a short while previously, (2) a mild sting at the site of the bite to which little attention was paid, (3) the appearance of being acutely, agonizingly ill, with restlessness, inability to remain still (much similar to patients with kidney colic), and complaint of unbearable pain in the back and abdomen and, sometimes, the chest, (4) failure of the usual quarter grain dose of morphine to give relief, and (5) the persistence of the pain for from 24 to 72 hours. A frequent sign is abdominal rigidity. Nausea, a desire to urinate often, urinary retention or an urticarial rash may also be present.

Conclusion

The bite of the black widow spider (*Latrodectus mactans*) may prove very serious, even fatal. There are always severe back and abdominal pain and, usually, rigidity, making the cases frequently difficult to differentiate from an acute abdominal lesion.

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*A DISCUSSION OF ABDOMINAL CESAREAN SECTION

By Jack D. Parker, M.D., Greenville, S. C.

In preparing this paper, I have freely referred to the statistics, criticisms, and suggestions as have been reported from studies of the Obstetrical Divisions of the larger hospitals in various parts of the country.

The incidence of Cesarean Section in general seems to have responded to the thrust of conservatism into all obstetrical procedures and has now reached a fairly stable plane, the incidence being about 1 out of 107 deliveries. Of course, in a great number of instances the operation is abused, and as Williams expresses it, not a few patients are sacrificed to the furor operativus of obstetricians and general surgeons who are ignorant of the fundamental principles of the obstetric art. This being true, we should be particularly considerate of the indications and contra-indications of abdominal delivery.

As to the indications for such delivery we must necessarily resort to the field of relativity, with the exception of the few absolute indications. The most common being the contracted pelvis with a true conjugate of 6 to 6½ cms., or an immense child—in either or any instance producing a marked cephalo-pelvic disproportion. Exostoses, fibromyomata, large cysts, stenosis of the cervix, or neoplasms of the uterus and adnexa prolapsed before the child, also offer absolute indications. Some of these absolute indications, with proper and muchly deserved regular pre-natal care, can be removed or avoided before the time of delivery.

As to the relative indications of Cesarean, we might accept their existence when the obstetrician conscientiously feels that abdominal delivery affords greater safety to both mother and baby than any other type of delivery. This decision being so largely subjective, we quite naturally expect abuse of the operation in some instances, altho the direct cause of the abuse may be impatience, ignorance as to other per vaginam operative obstetrical procedures, the hopes of a larger fee, or the desire to create in

*Read before the Third District Medical Society, Laurens, S. C., October, 1933.

the layman's mind the thought of having done a dramatic and miraculous piece of work.

Cephalo-pelvic disproportions form by far the largest group in the indications for abdominal delivery. Out of a group of 89,558 deliveries there were 996 abdominal Cesarean sections, and approximately 45 per cent were performed because of a Cephalo-pelvic disproportions. Those pelves with a true conjugate of less than $6\frac{1}{2}$ cms. are placed in the class of absolutely contracted pelves and as mentioned, these cases are absolute indications for Cesarean. The pelvis with true conjugate from $6\frac{1}{2}$ to $9\frac{1}{2}$ cms., that is the relatively and moderately contracted pelvis, form the group in which the relative indication of Cesarean exists. No general rule can be laid down as to whether a Cesarean should or should not be done, but considering the size of the baby, the parity, the presence or absence of infection, the viability of the baby, the length of labor, the general condition and age of the mother, the number and type examinations, the amniotic sac, the environment, and the ability of the accoucheur, we should be able to properly decide the course.

In the group of relatively contracted pelves, that is with true conjugate of $6\frac{1}{2}$ to 8 cms., under favorable circumstances, I feel that a Cesarean should be done. In the case of a normal sized viable baby there is no reason for any test of labor, and to alleviate the possibility of the appearance of some of the conditions unfavorable to abdominal delivery, all plans for section should be made, and the operation done at the commencement of labor. If, before labor commences, any signs of fetal distress or beginning toxemia of mother manifest themselves, Cesarean should be done at any elective time before labor begins, considering mainly that there will be no danger to viability of baby due to prematurity.

If the baby is non-viable abdominal delivery is contra-indicated and we are forced to the mutilating operation of a craniotomy. If the baby is viable and there is doubt as to the asepsis maintained in some of the examinations or if the mother is seen to be potentially infected, we must resort to the Porro Cesarean, that is, removal of the uterus.

Now in the group of moderately contracted pelves, that is with true conjugates of 8 to $9\frac{1}{2}$

cms., our decision as to the safest mode of delivery for both mother and baby is not so easily reached. Decision in this instance will be very largely guided by whether or not the mother has had regular and intelligent pre-natal attention, and by whether or not we have maintained her vaginal asepsis, so to speak, after she goes into labor or in case we decide upon giving her a test of labor. In those pelves with a true conjugate of 9 to $9\frac{1}{2}$ cms., that is, the upper limit of this group, and in which the size of the baby has been controlled as much as possible by diet of the mother, premature induction of labor will terminate 75 per cent of these cases very happily and without necessity of operative interference, except possibly low or mid forceps. Let me stress the importance, in following this procedure, that we be prepared to do an abdominal delivery in case the test of labor is not successful. Only rectal examinations should be made, every effort carried forth to preserve the bag of waters, close attention to foetal heart and mother's pulse, and when there is a cessation of progress of labor, then we must proceed with abdominal delivery by means of a low cervical section. Version, high forceps, and hebosteotomy are other methods of delivery at this stage, but due to a so much greater foetal mortality, and the remarkable comparative lowering of maternal mortality following the low cervical Cesarean that it seems unquestionably the treatment of choice. In case of non viable babies the craniotomy, or following an unsuccessful attempt at breech extraction with non viable baby craniotomy on the after coming head will save much trauma, and possibly ruptured bladder, ruptured uterus, or rectal tear.

In the group of slightly contracted pelves, with true conjugate of $9\frac{1}{2}$ to 11 cms. labor practically always terminates spontaneously, provided the baby is not unusually large. If this is the case, then we have a cephalo-pelvic disproportion to approximately the same degree as in the group of moderately contracted pelves, and the treatment would be as just outlined. Patience in these cases, coupled with careful and frequent observations, is usually the only duty extra to a normal spontaneous or low forcep delivery.

In discussing these contracted pelves it is

evident that we have assumed normal cephalic presentations and mechanism of labor, and when they do not exist, naturally the incidence of Cesarean will be greater.

Premature Separation of Placenta

In a definite premature separation of the placenta, and a definite diagnosis should not be particularly difficult, I feel that we have another almost absolute indication for abdominal delivery. Those cases that have gone in labor and whose cervix is easily dilatable so that version and quick delivery can be effected, are the only exceptions that I see to doing a laparotrachelotomy. We must remember that in case immediate delivery is not carried out the prognosis for both mother and baby becomes indeed most grave.

Placenta Previa

In placenta previa, those cases presenting a long cervix, or one not easily dilatable, unquestionably should have an abdominal delivery. In the central type of placenta previa, with an effaced and dilatable cervix, the choice of method of delivery must be made between insertion of bag thru the placenta or abdominal delivery, and I personally prefer the laparotrachelotomy. In the marginal and lateral type placenta previas, with the exception of those cases of the rigid cervixes, rupture of the membranes, tight abdominal binder and the use of the bag followed by version and extraction of the baby is preferable. If the baby is non-viable, a Braxton Hicks version serves the purpose as well. After the buttocks is brought to bear upon the placenta, the remainder of the delivery should be left to the expulsive forces of the mother. Greenhill reports 44 cases of section in placenta previa without maternal mortality, and states that his mortality by so called conservative methods is 3.9 per cent. Any attempt at intrauterine manipulation or a hurried delivery thru an insufficiently dilated cervix is certain to do both mother and baby much damage, and likewise cause us much worry and regret over our impatience and faulty judgment. In both these complications of hemorrhage too much importance cannot be placed upon the readiness to transfuse these mothers, and donors should be obtained before our operative pro-

cedures begin. The incidence of post partum hemorrhage and infection is considerably increased in these two conditions.

Eclampsia

The use of abdominal delivery in Eclampsia is still a question undecided except to the ardent supporter of either the radical or conservative type treatment. Following my residency on a maternity service pungent with conservative principles, I still feel that treatment of the Eclampsia and disregard of the pregnancy temporarily, with one exception, will give us a larger number of happy terminations for the convulsive toxemic. The one exception mentioned is that type of case in which labor has not begun, with rigid soft parts and long closed cervix, and convulsions continuing at the same frequency after morphia, mag. sulph., glucose, etc. Here, for the sake of mother and baby, abdominal delivery is indicated. In a collective review by Greenhill it is stated that the universally recognized contra-indications to Cesarean are the presence of infection, lack of valid indication for the operation, and the convulsive stage of eclampsia; and further that the mortality even in unskilled hands is not as high as that of section performed in presence of contra-indications. Quite naturally the existence of any cephalo pelvic disproportion, abnormal presentations, placenta previa, or other added complications tending to produce dystocia would likewise call for abdominal delivery. In the majority of the larger clinics, my impression is that Cesarean delivery in Eclampsia is not regarded as favorably as the conservative treatment.

Due to the rather detailed discussion of the contracted pelves I find that in order to have a minute for discussion of the types of abdominal Cesarean operations, I must only briefly mention the other relative indications for Cesarean. Prolapsed cord, the elder primipara, (and practically all primipara above 35 should be delivered by Cesarean) cervical or vaginal stenosis, the dystrophica dystocia syndrome, healed vesico-vaginal or recto-vaginal fistulae, prolapsed arm in primipara or other abnormal presentations in which there is an early rupture of membrane, or a question of existence of cephalo-pelvic disproportion. The decisions in

these border line cases can only be made after careful consideration of the environment, the parity, the age, the condition of the cervix and the soft parts, the size and viability of the baby, the duration of labor, the presence of active or potential infection, the general condition of the mother, and last, but not least, the type procedure that the obstetrician feels he can best carry out in the interest of the safety and future health of the mother and baby.

Shall we say, "once a Cesarean always a Cesarean"? Until I have had greater opportunity to see more healed cervical scars, I think Cesarean should be repeated with subsequent pregnancies. This is certainly true in the classical section, and in the low cervical where there is any doubt as to the proper healing of the wound or the existence of any post operative infection. After reading the reports of some of the cases of ruptured uteri, and considering the lowered mortality in elective laparotrachelotomy, repetition of the operation seems safest.

In drawing to a conclusion, let us consider briefly the types of abdominal Cesarean sections and their respective indications. The classical Cesarean section, in the past by far the most popular, is rapidly being replaced by the low cervical or labarotrachelotomy. Personally, the only reason that I see for doing a classical section is when it is desired to do some other operative procedure at the same time of the section, such as sterilization, removal of cyst, etc. It is true that the classical is the easiest section to do, and can be done quicker, but considering that its maternal mortality, and post-operative complications are approximately twice as great as in the low cervical, I venture to prophesy that within the next quarter century the classical section will be almost entirely replaced by the low cervical. A detailed description of the technique in these operative procedures is purposely omitted, except in that as it is necessary to show why the low cervical should replace the classical section. As you know, the incision is made over the fundus of the uterus in the classic operation, and our horse shoe shaped laparotomy pad is the only meager protection that we have to prevent the uterine spill, infected or not, from contact with intestines and omentum, and the mid-portion of the peritoneal cavity.

In the low cervical or laparotrachelotomy, by the transverse peritoneal incision and dissection of bladder downward and uterine peritoneal attachment upward no omentum or intestines come into view, hence less peritoneal shock, the spill is in the lowest portion of the abdomen, and hemorrhage is more easily controlled. The laparotrachelotomy scar, being well covered by peritoneal flaps and fascia, and situated in the cervix which is not going thru the rhythmical contractures as is the uncovered classic scar, the possibility of leakage, faulty healing, and infection is far lessened. In an analysis of 1000 cases of abdominal Cesarean section by Courtiss and Fisher of Boston it was shown that the mortality in the low cervical was one-fifth that in the classic operation, that the unfavorable response to the test of labor was one-thirteenth that of the classical section, and that the incidence of post-operative morbidity was one-tenth that of the classical. In Philadelphia the mortality of the classic section is reported as 6.7 per cent and of the low cervical as 3.8 per cent. Consequently laparotrachelotomy is much safer following the test of labor, or doing an abdominal delivery when the asepsis of previous examinations is questioned, and further assures us better healing, better protection against septic peritonitis, and an easier convalescence. An additional and important advantage of the low cervical is that it can be performed very satisfactorily under local anesthesia.

The Porro operation, more suitably designated a Cesarean section followed by supravaginal hysterectomy, is indicated, and offers a means of escape from a difficult situation, in those cases of frankly infected uteri, especially so if the mother has reached the age where the child bearing period is about complete. Employment of the Porro affords the opportunity to deliver a living child, and at the same time to remove a large, involuting boggy infected, and partly necrosing uterus. Other indications for the Porro operation are: The presence of large fibroids where myomectomy cannot be satisfactorily performed, osteomalacia, uncontrollable hemorrhage at the time of Cesarean section, rupture of the uterus, tears or lacerations of the uterus inflicted during at-

tempts at delivery, especially so in the presence of infection.

The other abdominal section, Latzko's extra peritoneal, seems to offer no advantages over the low cervical or Porro, and due to the probability of bladder or ureteral injury, or very free vaginal bleeding, usually difficult to control, I feel that for the average condition the low cervical is the operation of choice.

I regret that due to the length of the paper, important phases of this discussion have been omitted. In closing, I feel that emphasis of the following points will cause a continuance in the drop of our foetal and maternal mortality rate, namely:

1. Regular and careful pre-natal examinations, with particular attention to pelvic measurements upon first examination.

2. A substitution of rectal for vaginal examinations just prior to and during labor.

3. Replacement in the usual case, of the classical section by the laparotrachelotomy.

4. Increased use of the Porro operation in the infected cases.

5. Conservative plan of treatment in Eclampsia.

6. Tests of labor in those border line cases before sectioning, and use of laparotrachelotomy after unsuccessful test of labor.

**MARLBORO COUNTY MEDICAL SOCIETY,
ANNUAL NEW YEAR'S MEETING AND BANQUET, HELD FRIDAY AFTERNOON, JANUARY 12, 1934, AT BENNETTSTVILLE, S. C.**
PROGRAM:

1. Some of the Present Problems of the S. C. Medical Association—Dr. Robert E. Abell, Pres. S. C. Med. Assoc., Chester, S. C.

2. Comments on the Federal Emergency Relief Program for the Indigent Sick in South Carolina—Dr. Edgar A. Hines, Sec. S. C. Med. Assoc., Seneca, S. C.

3. Cancer of the Colon and Rectum (Lantern Slides)—Dr. J. Shelton Horsley, Richmond, Va.

DINNER IN BANQUET HALL

4. Lung Abscess (Lantern Slides)—Dr. Wilburt C. Davison, Durham, N. C.

5. Endocrinology in Its Relationship to the Female Generative Organs—Dr. A. Johnston Buist, Charleston, S. C.

6. Encephalitis—Dr. Beverley R. Tucker, Richmond, Va.

Dr. D. D. Strauss, Sec.,
Bennettsville, S. C.

**ANDERSON COUNTY MEDICAL
ASSOCIATION**

The members of Anderson County Medical Society were guests of Anderson County Hospital at the "Nurses Home," Wednesday December 13th at 7 p. m.

An elaborate dinner was served to approximately fifty guests present.

Meeting was called to order in usual manner by President, Dr. J. L. Gray. The minutes of November 8th were read and approved.

First the reading of a letter from W. Martin Crenshaw, who is a patient at Anderson County Hospital, to President Dr. J. L. Gray asking him not to allow Dr. C. H. Young to discuss "Sciatica" at this meeting but to allow him to be on program next time. This provoked a great deal of laughter.

The chief topic of discussion for the evening was "Schedule of Medical Fees by S. C. Relief Association." Two letters from adjoining county Societies, Newberry and Abbeville were read opposing the schedule proposed prior to December 7th, however no opposition has been received since New-Fee-Schedule of December 7th. A great deal of discussion was begun immediately after the reading of above resolutions. Practically all present joined in the discussion. Dr. Teasley of Hartwell, Ga. talked of Fee Schedules in Georgia.

The President appointed an Advisory Committee, Dr. J. R. Young, Dr. B. A. Henry and Dr. W. B. McWhorter.

The annual election of officers was held. Dr. Frank Wrenn elected President, Dr. E. R. Donald, elected Vice President and Dr. D. J. Barton re-elected Secretary-Treasurer for year 1934.

The meeting was then adjourned.

Members present forty.

Visitors present eight.

Respectfully submitted,

D. J. Barton, M.D.,

Secretary-Treas. Anderson Co. Medical Soc.

TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Vol. VII

JANUARY, 1933

No. 1

The numerous articles on collapse surgery of the lung in current medical journals reflect a widespread interest in this subject. Pneumothorax, phrenicotomy, thoracoplasty and other means of collapsing the lung are being employed in an increasing proportion of cases. Improvement in technique is progressing steadily. In the October, 1933, American Review of Tuberculosis, forty articles on thoracic surgery, derived from medical journals of six countries, are reviewed. From this collection a few are here presented.

PROGRESS IN COLLAPSE SURGERY

Artificial-Pneumothorax Statistics

Artificial pneumothorax is one of the most hopeful and beneficial methods used in the treatment of pulmonary tuberculosis. A survey has been made of a series of cases treated by artificial pneumothorax from 1922 to 1928.

All patients had tubercle bacilli in the sputum before treatment and very few were early cases. Pneumothorax was attempted in 149 cases, out of which 102 were successful. Seventy-five per cent of the patients were between the ages of fifteen and twenty years. Of the successful pneumothorax patients, 29.4 per cent are still alive, while only 1.06 per cent of the unsuccessful ones are alive.

It is impossible to compare accurately these cases with ordinary sputum-positive patients, but there is no doubt that this therapy produces almost immediate benefit.

A Review of Artificial Pneumothorax Cases, G Hurrell, Tubercle, Sept., 1932, xii, 542.

Termination of Artificial Pneumothorax

Whereas the indications are well recognized for the induction of pneumothorax in patients with pulmonary tuberculosis, the criteria for its release are less clearly defined.

Seven factors are involved in the decision that the optimum time has been reached for re-expansion of the collapsed lung: (1) the type of onset of the tuberculous disease, and its course prior to the giving of pneumothorax;

(2) the period of time which has elapsed between attempting the pneumothorax, and producing a satisfactory collapse of the affected lung; (3) the rate of disappearance of tubercle bacilli from the sputum; (4) the existing constitutional symptomatology of the patient as compared with that before pneumothorax; (5) the type of refills; (6) the condition of the contralateral side; and (7) the economic status of the patient.

Physical signs by themselves are relatively unimportant, because even a thin film of air may mask or distort marked pathological lesions in the underlying lung. On the other hand, serial X-ray plates, especially those taken just prior to the induction of the pneumothorax, and for two weeks thereafter, are particularly helpful in that they show the degree of parenchymal involvement before collapse therapy. Later X-ray plates may be misleading, as mediastinal structures may overshadow changes in the parenchyma of the lung.

Of the seven factors listed, the time necessary for the disappearance of tubercle bacilli from the sputum constitutes the most important criterion as to the effectiveness of the pneumothorax. At the time of induction it is futile to estimate the necessary duration of the pneumothorax. Satisfactory pneumothorax for one year to one and a half years should be sought for. Occasionally shorter periods suffice, but far more often the clinical course necessitates a longer space of time.

When release of the collapsed lung has been determined upon, the affected lung should be allowed to expand slowly and under careful observation. An average-sized pneumothorax should require two and a half to three months for complete reexpansion of the collapsed lung. In instances in which air-absorption occurs too rapidly, the rate of expansion may be slowed by small refills; in reverse cases, the rate may be accelerated by putting the patient on graduated exercise.

The reappearance of tubercle bacilli in the

sputum, or the development of undesirable constitutional symptoms during the release of collapse therapy, are indications that pneumothorax should be maintained. In cases of large cavitation antedating the pneumothorax, a phrenico-exaeresis is advised at the end of the period of pneumothorax before attempting a release of the collapsed lung. This measure is also advocated during release of the pneumothorax if untoward symptoms develop as a result of a shifting of the mediastinum.

Ueber den Abschluss der Pneumothorax—behandlung, M. Gross, Muchen, med. Wchnschr., July 8, 1932, lxxix, 1122.

Expansion of Lung after Artificial

Pneumothorax

There have been very few reports on the status of patients in whom artificial pneumothorax has been stopped. In a series of 105 former pneumothorax cases, in which the lung had been reexpanded from one to eighteen years, 81 patients were alive and of these 62 were leading normal lives. Twenty-four patients were dead, and 19 of those living were still "curing."

Most of the cases in this study were in the far-advanced group, and all but 25 had lesions in the other lung. A positive sputum was present in 98 cases, and 75 of these became negative after pneumothorax treatment.

In the patients who are living and well, pneumothorax treatment had closed the cavities and rendered the sputum negative; of those still curing the cavities had not been closed, or extension had occurred to the other lung, or the patients were still recovering from other surgical procedures.

In a group of 38 patients, who had returned to work after reexpansion of the lung, only 3 had relapses in that lung. The former cavity reappeared 3 years after treatment had been stopped in one case; in another case an acute tuberculous process developed in the other lung, followed by cavity-development in the lung which had been originally collapsed, although this new cavity did not appear at the site of the old lesion; in the third case, the cavity reappeared seven years after cessation of pneumothorax.

In another group of 34 patients who returned to work, there were five who relapsed, but the

details of the relapses were not known. The total number of relapses in 72 patients who had returned to work was ten, and all of these occurred from 3 to 11 years after pneumothorax was stopped. The average time that pneumothorax was maintained in the 105 cases was 2.6 years.

It is concluded that reactivation following satisfactory collapse is the exception rather than the rule, and that an effective pneumothorax of two year's duration, with a negative sputum for at least one year, gives reasonable assurance that the lung may be expanded with safety. Even in those cases in which the pneumothorax is unintentionally lost at the end of 2 years there is no more danger of reactivation, if the cavity has been closed and the sputum rendered negative, than if the collapse were maintained for longer periods.

The Present Status of One Hundred Pneumothorax Patients after from One to Eighteen Years' Expansion of the Lung, E. N. Packard, J. Thorac. Surg., August, 1932, i, 581.

Bilateral Artificial Pneumothorax

The application of bilateral artificial pneumothorax on a wider scale is advocated. Selective collapse of the diseased areas of the lung, while permitting function of the healthier portions, is the procedure of choice. Adhesions mitigate against this procedure more than any other factor, and cauterization of adhesions is indicated when possible. When it is probable that a cauterization will enable the healthier parts of the lung to attain a better function and will secure more ideal conditions for a gradual re-expansion of the affected parts, cauterization is indicated, even if the artificial pneumothorax has been clinically successful.

In limited disease the complete thoracoplasty now in vogue should give way to partial thoracoplasty or apicolysis. In bilateral artificial pneumothorax needles with side openings should not be used, as they are more apt to perforate the lung than the ordinary needles. Combinations of methods may be desirable, such as phrenicectomy or plombage or partial thoracoplasty on one side and pneumothorax on the other. A bilateral phrenicectomy has been carried out with relatively good result and without any serious disturbance of function.

A case of bilateral thoracoplasty is reported.

The patient, a young girl, was febrile for 18 months prior to the operation, but has remained afebrile ever since. The expectoration, which was rather copious in amount, decreased to

about 10 cc. in 24 hours but was still positive for tubercle bacilli.

Selective Lung Collapse in Bilateral Disease, J. Gravesen, Lancet, Feb., 18, 1933, cxxiv, 354.

SURGERY

Wm. H. Prioleau, M.D., F.A.C.S., Charleston, S. C.

"SUBPHRENIC ABSCESS"

Subphrenic abscess is of interest to any one doing abdominal surgery. Like many other conditions it is likely not to be recognized until it is well advanced unless one is constantly bearing it in mind. It is always of serious significance—in various series of cases the mortality is reported as from 10 per cent to 50 per cent. The time of recognition and the method of treatment are the most important determining factors—both of which should be to a great extent, under our control. By reviewing a large number of cases certain deductions can be made which help us in treating this condition. This has been done very well by Dr. Alton Ochsner and Dr. Amos M. Graves in the *Annals of Surgery* NCVIII:967 December 1933.

The subphrenic area is that space between the diaphragm above and the transverse colon and transverse mesocolon below. It is divided into right and left, and by the liver and its peritoneal reflections. Infections in the various subdivisions manifest themselves differently.

While other etiological factors are possible, subphrenic abscess is almost always a late complication of an intra-abdominal suppurative process. According to the authors infections of the subphrenic space occur more frequently than is commonly supposed, however only 30 per cent of those which can be diagnosed clinically, actually proceed to suppuration. In one series of 972 cases of acute appendicitis there was an incidence of 1 1/2 per cent of subphrenic infection.

In the great majority of cases the process originates from acute appendicitis, perforation of an ulcer in the stomach or duodenum or infection of the liver and bile passage. The subphrenic spaces may be infected by local exten-

sion from neighboring lesions, by the drainage of infected peritoneal extension, and by lymph channels.

The clinical picture is one of continued infection. However in some cases all evidence of infection may subside for weeks or months before the abscess becomes clinically apparent. The earliest local signs are tenderness and limitation of the respiratory movements on the affected side. These in the presence of continued infection not otherwise explained are quite conclusive. Roentgenological findings are generally very helpful. Elevation and immobility of the diaphragm are important signs. Diagnosis by aspiration is mentioned only to be condemned as in most cases it carries with it too great danger of infecting uninvolved portions of the pleural and peritoneal cavities.

In advanced cases the commonest and one of the most serious complications is an intrathoracic inflammatory process. This is probably caused by the passage of the organisms through the lymphatics of the diaphragm into the pleural cavity. Once developed it may mask the picture of the subphrenic involvement. This complication greatly increases the seriousness of the condition.

The treatment of subphrenic abscess is by early and proper surgical drainage. In obtaining this it is most important to avoid contaminating an uninvolved serous cavity. Disregarding this principle will greatly increase the mortality. Transpleural drainage often results in an empyema even with careful suturing of the diaphragm to the chest wall. Likewise it is dangerous to drain through an uninvolved portion of the peritoneal cavity.

Extraperitoneal drainage is advised even though it is not the most direct. The approach

depends upon the location of the abscess. The posterior one is by a transverse incision through the bed of the resected 12th rib at the level of the spinous process of the first lumbar vertebra. This avoids the pleura at the costo-phrenic angle. Through this the infrahepatic and posterior suprahepatic spaces can be explored and drained without contaminating the general peritoneal cavity. The anterior approach is by an

incision through the flat muscles just below the costal margin. The peritoneum can be easily stripped from the diaphragm and safe and adequate drainage established.

By early diagnosis and drainage without contaminating the pleural or peritoneal cavities much better results have been obtained than are usually reported. In the article referred to, the operative technic is well illustrated.

**PROCEEDINGS OF THE REGULAR MEETING
OF THE MEDICAL SOCIETY OF SOUTH CAROLINA,
WHICH WAS HELD AT ROPER HOSPITAL
TUESDAY EVENING, NOVEMBER
28th, 1933, AT 8:30 O'CLOCK**

The meeting was called to order by the President, Dr. Daniel L. Maguire.

Present: Doctors: B. R. Baker; Banov; Beach; Bowers; Branford; A. J. Buist; A. J. Buist, Jr.; Burn; Cain; Cannon; Chamberlain; Culbreath; Gantt; Hope; Jenkins; F. B. Johnson; La Roche; Maguire; Martin; Mitchell; Mood; O'Driscoll; F. L. Parker; Pearlstine; Peeples; F. R. Price; W. H. Price; W. J. Ravenel; J. J. Ravenel; Rhame; Richards; Rudisill; Rutledge; Sams; Scott; W. H. Speissegger; Steinberg; Taft; E. W. Townsend; J. F. Townsend; Waring; Whaley; I. R. Wilson; Robert Wilson; R. Wilson, Jr. (45).

Guests: Captain H. L. Dollard and Lieutenant W. S. Sargent, of the U. S. Navy; Dr. Lassek of the Medical College and Dr. John Arthur Siegling.

The minutes of the meeting of November 14th were read and confirmed.

The President stated that as the application of Dr. John Arthur Siegling had been reported on favorably by the Board of Censors, he was now eligible for election. Ballots were taken, and Dr. Siegling was unanimously elected to membership in the Society. The President directed that Dr. Siegling be requested to be present at the next regular meeting of the Society in order that he might sign the constitution.

Under Reports of Officers and Committees, the Program Committee reported on plans suggested for the Annual Meeting. Upon motion by Dr. Buist, the Society voted to have a buffet supper, whose cost would not exceed one dollar a plate.

Under Miscellaneous Business, a letter from the Newberry County Medical Association was read, protesting against the fees proposed by the State Association in cooperation with the Emergency Relief Administration. Dr. Buist reported that his committee was not yet ready to report because many problems were still unsettled, that he was in sympathy with the Newberry report, and suggested that a readjustment of the fee schedule be requested. Dr. Cannon reported on a discussion of this subject at the recent District Association meeting, which brought out that there was rather general dissatisfaction, and mentioned that the American Medical Association was gathering information on the matter. Upon motion

of Dr. F. B. Johnson, the letter was referred to the Advisory Council on Medical Relief.

The President stated that the nomination of officers for the ensuing year was now in order. Nominations was then made as follows:

For President, Dr. F. B. Johnson, by Dr. Eleanor Townsend.

For Vice President, Dr. J. J. Ravenel, by Dr. R. M. Hope.

For Secretary, Dr. W. A. Smith, by Dr. F. R. Price.

For Treasurer, Dr. J. H. Cannon, by Dr. J. S. Rhame.

For Librarian, Dr. W. C. O'Driscoll, by Dr. O. B. Chamberlain.

For Member of Board of Commissioners,

Dr. W. A. Smith, by Dr. J. J. Ravenel.

Dr. J. I. Waring, by Dr. J. D. Whaley.

Dr. P. G. Jenkins, by Dr. J. S. Rhame.

For Member of Board of Censors, Dr. O. B. Chamberlain, by Dr. Cannon.

For Delegate to State Association, Dr. J. S. Rhame, by Dr. Cannon. This nomination was withdrawn at Dr. Rhame's request and Dr. Kivy Pearlstine was nominated by Dr. Buist, and Dr. Beach was nominated by Dr. Cain.

For Alternates to the State Association, Drs. R. M. Hope, F. C. Cain, J. I. Waring, P. W. Sanders and J. D. Whaley were nominated by Drs. Burn, Cannon, Chamberlain, Whaley and Peeples, respectively.

The President stated that Dr. F. B. Johnson, and Dr. Kivy Pearlstine, having been members of the Society for twenty-five years and having paid all dues and assessments, were eligible for election to Honorary Fellowship, at the Annual Meeting of the Society.

The Scientific Session was called at 9:00 P. M.

Dr. G. P. Richards made a case report on Gastric Anacidity, with reference to Diarrhea.

Dr. J. H. Cannon read reports on cases of Coronary Thrombosis. These reports were discussed by Dr. Robert Wilson.

Dr. J. J. LaRoche reported a case of Agranulocytosis, which was discussed by Drs. R. Wilson, Jr., J. F. Townsend, Rudisill, Pearlstine, and I. R. Wilson, Dr. LaRoche closing.

Dr. Robert Wilson reported a case of Thomson's Disease.

There being no further business, the meeting adjourned.

W. A. Smith, Secretary.

SOUTH CAROLINIANA

J. I. Waring, M.D., Charleston, S. C.

From the "Philadelphia Journal of the Medical and Physical Sciences," Vol. 3, 1824, the following announcement is taken.

"The *Medical Society of South Carolina*, having organized a School of Medicine, agreeably to the powers conferred at the last Session of the Legislature, the following details are made for the information of the public.

The Professors elected are:

John Edwards Holbrook, M.D., Professor of Anatomy, Fee—\$20.

James Ramsay, M.D., Professor of Surgery, Fee—\$15.

Samuel Henry Dickson, M.D., Professor of Physic, Fee—\$20.

Thomas G. Prioleau, M.D., Professor of Obstetrics and Diseases of Women and Infants, Fee—\$15.

Henry R. Frost, M.D., Professor of Materia Medica, Fee—\$15.

Edmund Ravenel, M.D., Professor of Chemistry and Pharmacy,—\$20.

Stephen Elliott, L.L.D. Professor of Natural History and Botany.

A Matriculation Ticket to be paid for at the first Session, \$5.

"In order to entitle an individual to examination for a degree, it will be necessary that he shall have attained the age of twenty-one years, be of good moral character, and have studied medicine for two years with some established practitioner. He shall also have taken the ticket of each Professor for two courses of lectures, or shall have attended one full course at some other respectable Medical School, previously to his becoming a member of this Institution.

"From the statements made, it appears that every opportunity of acquiring medical information, will be afforded to the southern student by the Medical College of South Carolina, and that at a rate of expenditure very trivial. But some advantages of a peculiar character

are connected with this Institution, which it may be proper to point out.

"No place in the United States offers as great opportunities for the acquisition of Anatomical knowledge, subjects being obtained from among the coloured population in sufficient number for every purpose, and proper dissections carried on, without offending any individual in the community. Those impediments which exist in so many other places to the prosecution of this study are not here thrown in the path of the student—public feeling being rather favourable than hostile to the advancement of the science of Anatomy.

"In addition, the southern student can nowhere else receive correct instruction on the diseases of his own climate, or the peculiar morbid affections of the coloured population.

"Charleston, June 19th, 1824."

THE PECAN NUT AS A SOURCE OF VITAMIN A.—Levine, H., Charleston. J. of Home Econ. 24 Jan. 1932-49.

By feeding experiments on rats, pecans were found to be a good source of Vitamin A. (3.6 units per gram).

IS GOITER DUE TO AN IODINE DEFICIENCY PER SE?—Levine, H., and Remington, R. E., Charleston. J. of Chem. Ed. 10 Nov. 1933-649.

"A review of the literature is made with the purpose of citing and commenting on experimental evidences that factors other than iodine *per se* are concerned in the etiology of goiter. Factors such as cabbage, calcium, light, temperature, seasonal variation, endocrine glands, vitamins, infection, and chemical stimulation are discussed in connection with their possible influence on goiter. A suitable dietary technic for the production of goiter in the rat useful in the study of various goiter problems is also described."

HISTORY OF INFLUENZA EPIDEMICS.

—J. F. Townsend, Charleston. Ann. Med. Hist. Nov. 1933—533.

An extended review of the story of influenza from its earliest vague beginnings to its present indefinite status.

TRENDS IN OBSTETRIC ANALGESIA.

J. D. Guess, Greenville. Amer. Medicine 28 (New Series) Apr. 1933—8.

The various methods of securing obstetric analgesia are reviewed and discussed, and the necessity for selection of the one best adapted to the individual case is stressed. Routine use of any one method is decried.

SOCIETY REPORTS

PROCEEDINGS OF THE ANNUAL MEETING OF THE MEDICAL SOCIETY OF SOUTH CAROLINA, WHICH WAS HELD AT FORT SUMTER HOTEL TUESDAY EVENING, DECEMBER 12th, 1933, at 8:30 O'CLOCK

The meeting was called to order by the President, Dr. Daniel L. Maguire.

Present: Doctors: A. E. Baker, Jr.; Ball; Banov; Beach; Boette; Bowen; Bowers; Brantford; A. J. Buist, Jr.; Burn; Cain; Cannon; Chamberlain; Culbreath; Deas; W. H. Frampton; Gantt; Hiott; Hope; Jenkins; F. B. Johnson; La Roche; Lynch; McCrady; McInnes; Maguire; Martin; Mitchell; Mood; O'Driscoll; Pearlstine; Peeples; Prentiss; F. R. Price; Prioleau; J. J. Ravenel; W. J. Ravenel; R. B. Rhett; W. M. Rhett; W. P. Rhett; Richards; Rudisill; Rutledge; Sanders; Scott; J. E. Smith; W. A. Smith; W. H. Speissegger; Steinberg; Sughrue; Taft; E. W. Townsend; Waring; Whaley; Wild; I. R. Wilson, Jr.; L. A. Wilson; Robert Wilson; R. Wilson, Jr.; Zerbst; Siegling. (63).

Guests: Dr. Roe E. Remington, and Dr. Finger, of the Interne Staff.

The minutes of the meeting of November 28th were read, corrected and confirmed.

Under Reports of Officers and Committees, Dr. J. H. Cannon stated that Dr. W. H. Johnson and Dr. C. A. Speissegger were both ill and unable to attend to their duties, and he moved that their dues be remitted. They are both Honorary Fellows and their dues are simply those of the State Association. This was seconded and carried.

The Secretary read the following letter from Dr. E. A. Hines, Secretary of the South Carolina Medical Association, as well as the proposed fee bill attached:

Dr. W. A. Smith, Secretary
Medical Society of South Carolina

29 November 1933

Dear doctor:

Please advise your members that the President called a meeting of the Special Committee on

Federal Relief fees in Columbia, Monday, November 27. The President, the State Secretary and the Special Committee appeared before the Federal Relief Administrator, Mr. Malcolm J. Miller, and asked for a rehearing on the Fee Schedule in view of the fact that the schedule agreed upon was not acceptable to the majority of the county societies. We called to his attention that some of the other states had secured a more favorable fee schedule than South Carolina and that this was unfair to our state. The Administrator, Mr. Miller, recognizes the inequality and promises to do what he can in Washington to correct it. We submitted another fee schedule inclosed herewith. It is expected that the Washington authorities will pass on it in a few days after which the Chairman will call the Council together to discuss every angle of the situation before submitting the schedule again to the county societies.

The Administrator of Federal Relief announced that the new plan provides that seventy five per cent of the people on relief rolls will be taken off at once and put to work and paid money sufficient to take care of their own needs. This will leave he said only a small percentage of people eligible for medical relief by the Government.

President Abell says that it has been impossible to reply to all the communications but he will do so through the Journal.

Yours truly,

E. A. Hines.

Requested South Carolina Fee Schedule

Office calls	\$ 1.00
House calls	2.00
House calls from 6:00 P.M. to 8:00 A.M.	3.00
Obstetrics, including prenatal and postnatal care	20.00
Minor Surgery	\$1.00 to 10.00
Major Surgery	50.00

Note: The Administrator will not approve of any form of mileage at present. No fees will be paid for hospital care.

The Secretary also read the following resolution

which he had received from the Abbeville County Medical Society:

Copy of Resolution passed by Abbeville County Medical Society at a Special Meeting, November 17th, 1933:

Resolved that the Abbeville County Medical Society, at its meeting held in Abbeville, South Carolina, on November 17th, 1933, does not endorse the action of the Committee representing the South Carolina Medical Association, which conferred with Malcolm J. Miller as to their Agreement regarding approved Schedule of fees for medical attention to their relief clients. That we will not agree to the Schedule of fees adopted, or agreed to by the above Committee; that we ask our President of the South Carolina Medical Association to call a Special Meeting of the House of Delegates to consider this matter.

A copy of this Resolution to be sent to the President of the South Carolina Medical Association, Dr. R. E. Abell, and to the Secretary, Dr. E. A. Hines.

F. L. Mabry, Secretary.

This was received as information and referred to the Advisory Council on Medical Relief.

Dr. A. J. Buist, Chairman of the Advisory Council on Medical Relief, reported that the Council had had a meeting and was not satisfied with the fee schedule proposed by the State Medical Association; that they had written to the Councilor of the District, setting forth the committee's opinion about this matter, and urged him to present their views at the meeting of the Councilors of the State. He stated that it was the opinion of the Council that the fee schedule should be revised upwards and they desired the Councilor for this district to make an effort to have this done. However, they agreed that if it was not possible to do so, that the Medical Relief Council of this Society would cooperate with whatever they thought best to do. He also stated that the Council had conferred with the local Relief Administrator, Mr. Grice, who received them pleasantly and was cooperative, but he pointed out that he must of necessity be guided by directions from the State Administrator, Mr. Miller.

The report of Dr. Buist was received as information.

Under Miscellaneous Business, the President announced that the Society would now proceed with the election of officers for the ensuing year. Dr. A. J. Buist requested a ruling from the Chair as to whether a plurality or a majority of votes was necessary for election. The Chair ruled that the majority of votes cast was necessary for election.

The Chair stated that Dr. F. B. Johnson was the only nominee for President. It was moved, seconded and carried that the Chair cast the

unanimous vote of the Society for the election of Dr. Johnson. The President stated that it gave him a great deal of pleasure to cast the ballot of the Society for Dr. Johnson. He then requested that Dr. K. M. Lynch and Dr. F. C. Cain conduct the newly elected president to the chair. He then installed the President and made the following address:

Mr. President, and members of the Medical Society:

Tonight marks the end of my term of office as president of the Medical Society of South Carolina and in placing the gavel into the hand of one who is worthier than myself, I cannot help but feel profoundly grateful and appreciative for the distinguished honor which was conferred on me two years ago. When I recall that our Society stands today as one of the oldest medical societies in our country and that its presidential chair has been occupied by men whose names have added lustre and brilliance to the great medical firmament not only of our state, but of our country, I needs must feel that I had attained a distinguished position. For remember that this Society was established in 1789, just a few years after the war of the Revolution—when our country was just beginning to be a country—and seventy-one years before the War Between the States of which we of today have no knowledge. Our Society then has the dignity of age and we have inherited a worthy birthright.

Men such as Minlock, Manning, Simons, Grange Simons, Rhett—as well as Robert Wilson, Cathcart, Buist, Parker, and Rutledge, have always lived up to the ideals of this society and have always been conspicuous for their scientific attainment. When I look back then on these worthy traditions of this honorable society I feel that I have been overcome by my own unworthiness. However, I am inclined to believe that my presidency was marked with a certain amount of success, not because I was your president, but because I had the advice, assistance and cooperation of the other officers and members of the society.

For our new president, I plead for continued cooperation, which means a working together for the good of our association. "In union there is strength" and this should be our slogan for all time as it has been in the past. There is no medical society, I am bold to say which is so much characterized by the absence of petty quarrels and jealousies as is ours. Cliques amongst us are unknown and may we always remain a united and harmonious society.

The scientific aspect of a medical society is always the most important. Some people however, entertain a belief that medical societies exist for the pecuniary advancement of their members just as trade unions and like organizations strive for

fewer hours and more pay for the working classes and that they tend to limit the freedom of personal opinion and abridge the individual rights of their members. This, however, is wrong, and we should inform those thus minded that medical societies exist not for selfish or commercial but mainly for scientific purpose and for the public good.

The young men of this society should write papers on timely subjects. They should not be backward and I can assure them that the secretary indeed will be glad to arrange a paper at any meeting for them. The younger men should not hesitate to participate in the medical or surgical discussions whenever they have anything valuable to offer—whether it is gleaned from the literature or from their own experiences. There is yet a large field of scientific information whose surface is hardly scratched. I refer to the records of medical and surgical patients of Roper Hospital.

There is in the record room of the hospital a vast store house of knowledge which has hardly yet been investigated. I was present a few months ago in the operating room of the Roper Hospital when an abdominal surgeon was operating a case of gastric cancer. He had explored the abdomen, decided that it was inoperable and had started to close the wound. He remarked that it was a sad commentary either on our knowledge of early surgical conditions of the stomach or our lack of persuasion to have patients operated early, but he stated that the vast majority of cases of supposed early involvement of the stomach by cancer reached him at the inoperable stage. This was a timely but at the same time an incriminating observation. But the members of our society did not get the benefit of this observation. I suggested to him that he should compile all of his cases by tabulation from the record room and compare age, sex, early symptoms, duration of disease before medical attention was sought, X-ray finding, stomach analysis, etc. in all these cases and present such a paper before the society. This, of course would be a colossal job but how interesting and valuable from a scientific and statistical standpoint.

Likewise, the record room would furnish many interesting records of cases of appendicitis, empyoma, cholecystitis, goitre and also many interesting cases of medical pathology.

I am attempting to say that we do not take advantage of the great store of knowledge which lies in the record room of our hospital.

My fellow officers in the society have been most willing at all times to do more than was required of them. I can not praise them too highly for their spirit of cooperation, advice and loyalty. Our Secretary has worked unstintingly for the good of our members, and I can assure you that if the meetings during the past two years have

been successful, the credit goes to him.

I am inclined to believe that the Society does not realize the important role which is carried on by our Board of Finance. The gentlemen composing this board handle the money of this society and let me say that during my term of office, they have had a great many meetings which have consumed many hours and they have been most careful and painstaking in the investment of your funds. Your president being a member, ex officio, of the Board of Finance, has attended the meetings of this board and too great praise can not be given to these gentlemen for this most important work of the Society.

In conclusion may I say that at the time of the farewell dinner in New York in 1905, Dr. Osler confessed under the emotion of his reply to the tribute that had been paid him that to few men had happiness come in so many forms as it had come to him: "That his three personal ideals had been to do the day's work well, to act the golden rule in so far as in him lay, and lastly to cultivate such a measure of equanimity as would enable him to bear success with humility, the affections of his friends without pride and to be ready when the day of sorrow and grief came to meet it with the courage befitting a man." May I feel as Osler did.

Mr. President, I sincerely congratulate you on your election to this time-honored Society and I wish for you a very successful term.

Dr. F. P. Johnson, in taking the chair, spoke feeling of his pride and gratification in his election to this high office, and assured the Society that he would use every effort to make his administration a successful one.

The President stated that Dr. James J. Ravenel was the nominee for Vice President. It was moved, seconded and carried that the Chair cast the unanimous vote of the Society for Dr. Ravenel as Vice President, and Dr. Ravenel was elected. The same motions were made in connection with the election of the Secretary, Treasurer, and Librarian, and Dr. W. A. Smith, Dr. J. H. Cannon and Dr. W. C. O'Driscoll were respectively elected.

The Chair then stated that his ruling was the same as that one already given by the former President, that the majority of votes cast was necessary for election. Ballots were then taken for the following nominees for a vacancy on the Board of Commissioners: Dr. W. A. Smith, 21; Dr. J. I. Waring, 10; Dr. P. C. Jenkins, 30. On the final ballot, Dr. P. C. Jenkins was elected, the result being Dr. Jenkins, 32; Dr. Smith, 30. The President declared Dr. Jenkins elected.

Dr. O. B. Chamberlain was reelected by unanimous vote as member of the Board of Censors.

Dr. M. W. Beach requested that his name be withdrawn and that Dr. Kivy Pearlstine be elected by unanimous vote as Delegate to the State As-

sociation. Dr. Beach's withdrawal was accepted and on vote Dr. Pearlstine was elected a delegate.

The following nominees for alternates were unanimously elected: Doctors R. M. Hope, F. C. Cain, J. I. Waring, P. W. Sanders and J. D. Whaley.

Dr. F. B. Johnson, and Dr. Kivy Pearlstine, having been members of the Society for twenty-five years, were elected as Honorary Fellows.

At the conclusion of the elections, recess was taken to partake of a supper which had been prepared by the program committee. After the buffet supper, with the newly elected president as toastmaster, the following toasts were given:

"To our Society"—Dr. R. M. Hope.

"To Medicine"—Dr. G. H. Zerbst.

"To our Ex-Presidents"—Dr. A. E. Baker, Jr.

"To the 'Young Turks'"—Dr. P. W. Sanders.

"To the 'New Deal'"—Dr. Pierre Jenkins.

"To all Benedicts"—Dr. I. R. Wilson, Jr.

At the conclusion of these, the meeting adjourned.

W. Atmar Smith, Secretary.

ANDERSON COUNTY MEDICAL ASSOCIATION

The regular meeting of Anderson County Medical Society was held at John C. Calhoun Hotel, Wednesday, November 8th, 1933 at 12 Noon. The meeting was called to order by the President Dr. J. L. Gray. The minutes of October 15th were read and approved.

Under head of business—The Committee appointed by the President to make investigations and report to Society the probability of having a T. B. Sanatorium in Anderson County are the following: Dr. Grady Clinkscales, chair, Dr. D. C. Stoudermire and Dr. Frank Lander. The chairman made a favorable report in regards to this matter. After some discussion the following motion was made by Dr. Land. That Society adopt report and recommend to proper, county authorities that a T. B. Hospital (of about 10 or 15 bed capacity) for present time be built at county home. Motion seconded and carried.

The Scientific Program was presented by Dr. A. L. Smethers, whose subject was "Painkillers in Obstetrical Patients," this was a wonderful paper and was received with great deal of interest. Discussion was general.

Dr. W. T. Lander gave a brief talk on treatment of pneumonia, which, too, proved interesting.

Luncheon was served in hotel dining room.

Members present twenty-four.

Respectfully submitted,

D. J. Barton, M.D.,
Sec.-Treas. Anderson Co. Med. Society

RIDGE MEDICAL SOCIETY

The Ridge Medical Society held its usual meeting with good attendance from Saluda, New Brookland, Ridge Spring, Columbia and Batesburg.

Dr. W. P. Timmerman reported a case of a white man who had an injured shoulder which became infected and who died suddenly of hemorrhage about three weeks after the accident.

This elicited discussion and reports of several similar occurrences.

Dr. W. A. Oxner gave a resume of his observations at a recent meeting of the surgeons of The Seaboard Railway in Florida.

Dr. M. B. Woodward of the State Board of Health gave an instructive address on vital statistics.

In the discussions which followed some criticisms of the state board of health and other state officers were made.

Dr. P. M. Garvin of Ridge Spring who recently located joined our society.

The Ladies Auxiliary was delightfully entertained in the home of Dr. and Mrs. E. C. Ridgell.

Dr. R. H. Timmerman who has been sick for some weeks was able to attend the meeting.

Supper was served in The Rutland Hotel where good fellowship reigned.

Short speeches were made by Drs. D. S. Asbill, C. C. Applewhite, O. P. Wise and M. B. Woodward.

PROCEEDINGS OF THE REGULAR MEETING OF THE MEDICAL SOCIETY OF SOUTH CAROLINA, WHICH WAS HELD AT ROPER HOSPITAL TUESDAY EVENING, NOVEMBER 14th, 1933, AT 8:30 O'CLOCK

The meeting was called to order by the President, Dr. Daniel L. Maguire.

Presents: Doctors: A. E. Baker, Jr.; B. B. Baker; Beach; Bowers; Branford; A. J. Buist; A. J. Buist, Jr.; Burn; Cannon; Cathcart; Culbreath; Deas; Gantt; Jenkins; E. B. Johnson; LaReche; McInness; Maguire; Martin; O'Driscoll; E. R. Parker; F. L. Parker; Pearlstine; Peeples; W. J. Ravenel; R. B. Rhett; Rudisill; Rutledge; Sams; Sanders; W. A. Smith; W. H. Speissegger; Steinberg; Taft; E. W. Townsend; J. F. Townsend; Waring; Whaley; I. R. Wilson; I. R. Wilson, Jr. (40).

Guests: Captain H. L. Dollard, Captain Stupes and Lieutenant W. S. Sangent, of the U. S. Navy.

The minutes of the meeting of October 24th were read and confirmed.

The Secretary presented the application of Dr. John A. Siegling, properly endorsed, and containing the initiation fee. This was referred to the Board of Censors.

Under Reports of Officers and Committees, the Secretary read the following letter from Dr. E. A.

Hines, Secretary of the State Medical Association, and the schedule of approved medical fees, as submitted in this letter. On motion, this was received as information, and referred to the Advisory Council.

The Secretary
S. C. Medical Society

10 November, 1933

Dear doctor:

The officers of the State Association and the State Advisory Committee, Dr. S. E. Harmon, Chairman, have this week effected an agreement with the State Federal Relief Administrator for a flat rate fee bill to cover the state in the treatment of the indigent sick. I inclose a copy of this fee bill and will ask you to present it to your county Society for approval. If under unusual circumstances increases can be secured from the local administrator the State Committee will be in accord with the effort. This fee bill, however, as it stands compares favorably with that of other states. It will be necessary for the county society to appoint an advisory committee to function in connection with this whole matter.

This will be an excellent opportunity to appeal for a full membership in every county. The State Committee feels that the entire county society should go on record as being willing to do this work with some obvious exceptions as to individuals of course.

The Councilors will assist the societies in their districts in getting started with this program. All committees should be conversant with Rules and Regulations, Number 7, Federal Emergency Relief Administration, a digest of which was published in the A. M. A. Journal, September 23, 1933, page 1926.

Yours truly,

E. A. Hines.

Schedule of Approved Medical Fees and Expenses for the South Carolina State Medical Association by South Carolina Emergency Relief Administration

Office visits—fee	\$0.75
Home visits within 5 miles—fee	1.00
Home visits 5 to 10 miles inclusive—fee	1.25
Home visits 10 miles or over—fee	1.50

If more than one patient is visited on one trip, subsequent trips to be based on distance traveled from previous patient.

Maternity Cases

Delivery	\$10.00
3 to 5 prematal visits at office, each75
2 postnatal visits in home, and final examination at end of month based on fees as shown in zone schedule above.	

Surgical Cases

\$3.00 to \$25.00

Any intravenous medication is minory surgery, maximum fee \$3.00. X-ray examinations to be

classed as minor surgery and the maximum fee \$3.00 for one examination.

Fractures

No fracture to exceed \$10.00 except fracture of the femur, which is not to exceed \$25.00.

Hospital Treatment

Where hospital facilities are furnished by municipality, county or State, nominal costs of necessary surgery supplies furnished by the doctor to be allowed.

NOTE: The Association was granted practically everything asked for except mileage which was disallowed.

The Secretary read the following, at the request of the President:

October 26th, 1933.

On this date, Mr. Arinur Young and Dr. Daniel L. Maguire called at the South Carolina National Bank and opened lock box No. 229 which contained United States Liberty bonds, amounting to thirteen thousand, seven hundred and fifty dollars (\$13,750.) and which represents Alston Bequest to the Medical Society of South Carolina. The coupons (matured on this date) were clipped, amounting to two hundred and ninety two dollars and twenty cents (\$292.20).

Arthur R. Young,
D. L. Maguire, M.D.

Received from Dr. Daniel L. Maguire, President of the Medical Society of South Carolina, Two hundred and ninety-two dollars and twenty cents in 4th Liberty Loan Bond Coupons, Alston Bequest.

G. McF. Mood, Treasurer, Board of Finance,

Medical Society of South Carolina.

Under Miscellaneous Business, Dr. Edward F. Parker stated that the American Laryngological, Rhinological and Otological Society had planned for its meeting here in the spring, and he requested that the President appoint a committee to assist in the entertainment of this distinguished Society, requesting that he be made chairman. He stated frankly that he had already recommended to the President the personnel of this Committee. The President stated that he would be glad to carry out the request of Dr. Parker, and he appointed the following committee: Dr. Edward F. Parker, Chairman, Doctors J. F. Townsend, J. E. Smith, Jenkins, R. B. Rhett, Hope, Zerbst, Robert Wilson, Cathcart, A. J. Buist, Lynch, F. B. Johnson, and the President of the Medical Society.

Doctors Branford and Steinberg were present and signed the constitution.

Dr. Bowers announced that the District Medical Association would meet at Ridgeland at 4:00 p. m. on November 22nd.

Dr. Cathcart presented Captain Dollard and Captain Stukes of the Medical Corps of the U. S. Navy.

The Scientific Session was called at 9:00 p. m.

Dr. Henry Deas gave a short talk touching on his recent trip to the Mayo Clinic.

Dr. A. J. Buist, Jr., read an able paper on Reidel's Strums and reported a case. Dr. Culbreath made a pathological demonstration on Dr. Buist's case. This was discussed by Dr. A. J.

Buist and Dr. Rutledge, Dr. A. J. Buist, Jr. closing.

Dr. J. F. Townsend discussed the subject of Vincent's Angina, and reported an interesting case. This was discussed by Dr. A. E. Baker, Jr., Dr. R. B. Rhett, Dr. Townsend closing.

There being no further business, the meeting adjourned.

W. Atmar Smith, Secretary.

BOOK REVIEWS

THE MEDICAL CLINICS OF NORTH AMERICA, Philadelphia Number, November, 1933, Philadelphia and London, W. B. Saunders Company.

This number is representative of the great Philadelphia Medical Center and of the famous Saunders' Publishing Company. It may be that the publishers take a peculiar pride in getting out a specially creditable volume from the home town. First of all the St. Louis epidemic of sleeping sickness of 1933 by Saul is the beginning article. Then there is an interesting case of fatal poisoning of a negro man thirty nine years old who drank chloroform for the purpose of committing suicide. The patient stated he drank six ounces. The author states there is no specific antidote for chloroform and that most of the fatal cases seem to have had doses from one half to two ounces.

Personality Study and the Practice of Medicine is another thoughtful article in this number by Weiss of Temple University. The author calls attention to the important knowledge to be gained by careful study of the patient's mental reaction and the emotional history. In other words the psychological story.

THE SURGICAL CLINICS OF NORTH AMERICA: Issued serially one number every other month. Volume 13, No. 6. Index Number. (Pacific Coast Surgical Association Number—December 1933) 284 pages with 97 illustrations. Per clinic year (February 1933 to December 1933) Paper, \$12.00; Cloth, \$16.00 net. Philadelphia and London: W. B. Saunders Company, 1933.

One of the interesting articles in this number is that of a case of Acute Appendicitis Associated with Transposition of Viscera reported by Drs. Mason and Baker of the Mason Clinic, Seattle, Washington. The patient was a girl thirteen years old. She had fever, rapid pulse, abdominal pain and soreness. She had tenderness over the lower abdomen but more on the right side. There were some rigidity in the right rectus region. The little girl stated that

she had noticed often when running around that her heart beat on the right side. The diagnosis was made before the abdomen was opened of transposition, the appendix was gangrenous. Her recovery was uneventful.

Another interesting case in this volume is that of a foreign body removed from the abdomen after eighteen years reported by Forbes of Seattle. It was a piece of gauze. The author states that more than three hundred instances have been recorded of foreign bodies having been accidentally left in the abdomen, the most common being by far gauze. The author suggests that there are many more cases not reported as evidenced by personal communication. The average case requires a second operation from a few days to a year. The case herein reported being very unusual for the length of time the foreign body was in the abdomen. In general the patient's health was pretty good. The original operation was appendectomy and a year later another operation for removing the gall bladder. The mass was found in the region of the site of the gall bladder operation.

THE SURGICAL CLINICS OF NORTH AMERICA, October, 1933, Volume 13—Number 5, Chicago Number, Philadelphia and London, W. B. Saunders Company.

Any volume coming from the great clinics of Chicago promises to be of more than ordinary interest and such is the case with this one. One of the first considerations is a symposium on The Important Surgical Operations in Children by Davis and Timmen and McNealy, Bettman, Miller, Montgomery, Kretschmer and Chandler. This symposium covers a wide range of surgery including brain tumors, empyema, pyloric stenosis, hip dislocations, etc. As a matter of fact half the book is devoted to this symposium.

There is a valuable chapter by speed on every day knee injuries excluding fractures. The author notes that most of these lesions may be treated with a view to a satisfactory result.

NEWS ITEMS

Dr. J. W. Allen, formerly of New Orleans, Louisiana, has moved to Anderson and associated himself with Dr. W. H. Nardin, the well known eye, ear, nose and throat specialist of that city.

Dr. Francis B. Johnson, President of the Medical Society of South Carolina, has appointed the following local committee on arrangements for the meeting of the South Carolina Medical Association to be held on May 1, 2, and 3 at Charleston:

Drs. D. L. Maguire—Chairman; J. H. Cannon, G. F. Richards, J. J. Ravenel, R. B. Taft, A. E. Baker, Jr., W. Atmar Smith.

Plans are under way through The Woman's Auxiliary for an unusually attractive program of entertainments for the families of members attending the Charleston meeting.

The Francis Marion Hotel has been selected as the Headquarters for the convention. The rates will be reasonable. Other hotels are the St. John, The Argyle, The Fort Sumter, and the Charleston Hotel, Inc.

The usual arrangements for entertaining the

State Medical Association will be followed this year so far as the main features are concerned: that is, the President's ball, golf tournament, etc.

The Alumni Association will have its regular annual meeting and dinner.

One of the inspiring medical institutions in Anderson is the Clinical Society of the Anderson County Hospital presided over last year by Dr. J. R. Young. The New Year opens with Dr. T. R. Gaines in the chair. The society meets monthly and usually takes up some subject such as appendicitis or abscess of the liver and studies the records for many years, drawing conclusions therefrom for future guidance.

Dr. W. S. Judy was elected President of the Greenville County Medical Society, Dr. McNeil Carpenter, Secretary, and Dr. J. W. Jervey, Jr., Treasurer.

The following officers of the Columbia Medical Society were elected to serve for 1934: Dr. E. L. Horger, President; Dr. H. H. Plowden, Vice President; Dr. B. Rubinowitz, Secretary.

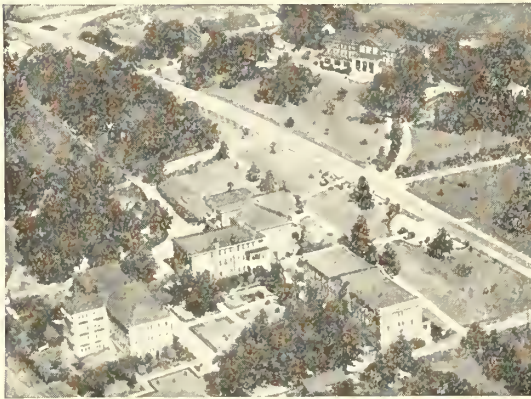
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The Journal

of the

South Carolina Medical Association

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NO. 2

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REASONS WHY YOU SHOULD SPECIFY

continued from last month

"Prior to spawning, the livers are usually heavily loaded with fat, and the vitamin concentrations are correspondingly reduced. With the formation and ripening of the reproductive elements, there is both a transference of fat and vitamins from the

liver to the gonads, which occurs to a much larger extent in the female than in the male, and a utilization of a proportion of the fat." "The cod spawn in these (Newfoundland) waters mainly in May and June." "The great proportion of cod liver oil is normally made during the months of July and August after the spawning is over and when the fish are feeding heavily first on caplin and later on squid." "The richest vitamin oils will, therefore, be obtained in areas where abundant food supplies for the fish are available and at seasons when the oil content of the livers tends to be low." "This we believe to be the explanation of the undoubtedly high vitamin value of the oil yielded by the cod caught in Newfoundland waters."

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*J. C. Drummond and T. P. Hilditch: The Relative Values of Cod Liver Oils from Various Sources, His Majesty's Stationery Office, London, 1930.

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The Journal

OF THE

South Carolina Medical Association

Published Monthly Under Direction of the Board of Councilors.—Annual Subscription, \$3.00.

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EDITORIAL

THE CHARLESTON MEETING, MAY 1, 2, 3.

The President and Secretary met with the Program Committee in Charleston, January 23 and completed most of the plans for the Eighty Sixth annual meeting to be held there. There will be some special features this year. The guests invited by the President are outstanding men of national eminence. Their names and titles of addresses will be given shortly. One of the most pressing problems is that of medical economics. The President has been extremely fortunate in his selection of a speaker for this subject. Then there will be special emphasis on obstetrics again this year. The State Association and the State Board of Health Executive Committee continue to make efforts to reduce the maternal mortality in South Carolina and with gratifying success. It has taken a long time to see results of the campaign but we are assured that the situation

is encouraging both for maternal and infant mortality reduction. The entertainments at the State Association meeting will not be elaborate but will be enjoyable. The Woman's Auxiliary will have charge of the entertainment of the ladies and it is expected and desired that the usual large attendance of the families of our members be present. The Woman's Auxiliary has been a tremendous inspiration to the social activities of the medical profession in various parts of the state. In addition to this in some of the counties the Woman's Auxiliary has done a great deal of work along public health lines and in many other ways. In some of our cities the Woman's Auxiliary is one of the most important organizations we have for the benefit of the public. Dr. Kenneth M. Lynch, Chairman of the Program Committee, has sent out a notice requesting titles of papers with brief abstracts to be sent to him. A good many have already been received and the pro-

gram is filling up rapidly. As is well known now the number of papers has been limited in recent years in order that each essayist might have an opportunity to be heard.

Everything points to a wonderful meeting in Charleston for there is no city anywhere more famous for its hospitality and more suitable for a great medical convention. The Francis Marion Hotel will be Headquarters but there are numerous other hotels in Charleston recommended by the Committee.

ADVANCES IN OBSTETRICS

The very practical paper published elsewhere in this issue read by Dr. Smethers before the Anderson County Medical Society is worthy of careful consideration. It is probably true that of all the branches of medicine obstetrics has not been given the enthusiastic support in the medical schools or in practice as the other surgical specialties. Perhaps we have been inclined to feel that this division of medicine is primarily a physiological problem and so it is to some extent but on the other hand it is often otherwise. It must be conceded that while the general practitioner who does most of the obstetrical work in this country may occasionally by research and clinical observation evolve ways and means for real advances in obstetrics it is probable that we should look to well equipped hospitals for the most significant and lasting contributions. There is no doubt that marvelous things have happened in the development of anesthetics in general in the past decade and all branches of medicine have profited thereby including obstetrics. There is an element of danger in a wide spread effort to enlarge the field of anesthesia by those not well prepared to undertake it and this is true as to obstetrics. The general practitioner should by and large hold fast to the simpler forms of anesthesia known to be reasonably safe in all parts of the world and over a long period of time. He should not forget, however, that many of the major discoveries in scientific medicine have been made by general practitioners and the field is open to them still as it always has been. In connection with the paper by Dr. Smethers it is interesting to note a word of warning coming out as the leading editorial

on the general subject in the New England Journal of Medicine and Surgery of February 1, 1934, as follows:

Obstetrical Analgesia: A Warning

The recent developments in the field of obstetrical analgesia and anaesthesia have brought relief from suffering. Have they brought anything else?

The patient says "I took some green medicine" or "some pink medicine" or "some purple medicine" or whatever color the capsule may have been and "pretty soon I went to sleep in my bed and they showed me my baby." So much for the patient's memory, but other persons might not give the same account of the incident. It is well known to physicians who have experience with the newer drugs that occasionally the patients become violently excited and in some series of cases about twenty per cent have required restraint. Therefore, the drugs should be used only when the patient can be properly supervised and controlled; that is, in general, only in the hospital.

By way of contrast the following excerpt from a paper published in Southwestern Medicine, January 1934 by Dr. Leighton Green, Jr. of El Paso, Texas recently returned from Europe. "Obstetrics in Berlin, you learn, has not advanced further than in America. In a new hospital of modernistic architecture, well-equipped, women struggle through delivery in a ward of six beds, without benefit of anesthesia. In the homes of the poor, operative deliveries are done under chloroform anesthesia."

One wonders sometimes in observing the practice of his confreres in obstetrics and in reading between the lines as to what happens throughout the world, if chloroform is not the most resorted to anesthetic in obstetrics regardless of textbook disapproval and other authoritative dissents. Few textbooks on obstetrics recommend chloroform but on the other hand may approve of ether in general practice instead. Have we made great progress then in the average practice of obstetrics from the standpoint of anesthesia? Undoubtedly we have in certain localities as is shown by the paper we have been discussing but it may be a long time before this situation obtains generally, but that is the case in many other phases of the practice

of medicine so we are not discouraged but press on with further investigations for the benefit of suffering humanity.

THE AMERICAN LARYNGOLOGICAL,
RHINOLOGICAL AND OTOLOGICAL
SOCIETY MEETS IN CHARLESTON
APRIL 3, 4, 5

We have called attention in an earlier editorial to the great honor conferred on South Carolina by the coming of one of the world's great special societies, of which Dr. J. W. Jervey of Greenville is the President. There are many features of this Society program which should appeal to the general practitioner, among them the important role played by diet in both the prevention and the treatment of disease along these special lines. It is not too much to hope that a better understanding of nutrition may yet solve many of the problems of the eye, ear, nose and throat specialist. It is evident even now that such is the case in specific instances. There are other features of the program we are assured worthy of the attend-

ance of a large number of members of the South Carolina Medical Association. We mention a few details now but later on the completed program will be available.

The Francis Marion Hotel will be Headquarters. The scientific sessions will be held only in the mornings from 9:00 A. M. to 1:30 P. M., the afternoons and evenings being given up to social diversions. There will be special excursions to the gardens and a special harbor excursion on the local Government steamer. One evening "The Society for the Preservation of Negro Spirituals" are giving us a complimentary concert, and in place of our annual dinner we are going to have a real Southern barbecue at Ashley Park, prepared by one of the greatest experts in the South, Mr. Peter C. Townsend, State Manager of the Virginia-Carolina Chemical Company of Columbia, S. C. The ladies one morning will be carried to visit the famous gardens in the city and another morning they will be carried to see the interior of several of the old Charleston homes. They will also be entertained at special luncheons, teas and receptions.

ORIGINAL ARTICLES

STRABISMUS WITH SOME CONSIDERATION OF METHODS FOR ITS CORRECTION

By J. W. Jervey, Jr., M.D., Greenville, S. C.

Strabismus is a condition of the eyes in which the two visual axes do not together pass through the point of fixation. It is also commonly called squint, and may be internal or what the laity calls crosseye, or external sometimes referred to as wall eye. There are other types which we need not mention. In a paper of this kind it is unprofitable not to say impossible to go into the subject in any detail. Volumes have been and will be written about it.

The time for treatment is as soon as the strabismus is apparent. All cases should be cured if possible before the seventh year, as it is doubtful whether the power of binocular vision can be developed if not acquired before this time. At present due to ignorance this is impossible, but in years to come the physician will be consulted at an early date. Mothers are becoming more and more enlightened year by year on this all important matter. Not without point do I bring to the attention of this highly intelligent group that well considered members of our profession are responsible for encouraging parents to allow their children's eyes to straighten themselves, and as a consequence are responsible for blind eyes and unsightly ones. Some children are born with strabismus. Some develop it suddenly after a severe illness, such as pneumonia, measles and whooping cough. Others develop it as they approach school age, and some only after they begin school. All cases, unless due to some traumatic cause, central nervous system disease, or tumor, develop before the eighth year.

In babies under 18 months of age the first thing to do is to put atropine in the good or non-squinting eye if it can be determined. This will force the use of the squinting eye by paralyzing accommodation in the good one. If

it cannot be determined atropine can be used alternately a week every month in each eye separately. This will force the child to use each eye alone at different times and thus help to conserve or restore vision which might otherwise be lost from disuse of the squinting eye. Atropine of course is a very powerful drug and some children are quite susceptible to it even in small doses, but even in infants 1-4 per cent solution can be used locally t.i.d. Flushing of the skin may occur but if so the per cent can be reduced. If toxic symptoms appear, they need cause no undue worry as children stand them well, and there has rarely been a case of death reported although large doses have been taken by mouth or hypodermically.

Errors in refraction are responsible for the majority of cases, and the sooner a determination of the refractive error can be made, and that error corrected, the better. By the use of cycloplegics, reasonably accurate refraction can be done as early as 18 months of age and glasses can be prescribed according to objective findings. There is no trouble in getting these little patients to wear them. Their glasses are usually the first thing they want when they wake up in the morning. Far from dangerous, they as a rule improve vision to such an extent that there is less chance of injury with spectacles than without them.

In older children, the better eye should be occluded daily for an hour or two to force the bad eye to work, and hence encourage return of normal function. This daily occlusion should be continued for six months to one year, faithfully, before it is given up, and vision should be checked from time to time to note whether there is improvement.

Glasses should be given a trial for at least three to six months and if there is no definite improvement in the squint operation should be considered. Orthoptic exercises are an old remedy, and cases of cure have been reported by their use. However, spontaneous cure also rarely occurs, and orthoptic exercises are not generally used by the oculists throughout the

*Read before the Greenville County Medical Society, Greenville, S. C., January 2, 1934.

country. Their use is too tedious, time consuming, and uncertain as to result. Valuable time must not be lost at critical periods when an eye may be becoming amblyopic (i.e. blind).

Until recent years it was generally taught that operation should be deferred until the age of six or seven years. Experience shows however that with modern technique certain operations can be performed, and to great advantage in patients as young as three years. Operation on persons over seven years old is usually for cosmetic reasons only, and results are more than pleasing. Occasionally outstanding and unlooked for results are procured. Complete tenotomy has been abandoned by the best surgeons because of its uncertainty. Over correction too often follows and one never knows where to find the severed tendon. Guarded or incomplete tenotomy, in which the tendon is cut across center in two or more places from opposite sides often gives good results but cannot be relied on as surely as recession, a procedure in which I am especially interested and which was brought forward by P. Chalmers Jameson in the Archives of Ophthalmology in 1922. This is the first operation to be described by which an ocular muscle can be safely and sanely lengthened. As this is a relatively new operation, especially in its finer points, I shall describe it briefly for the benefit of those of you to whom it is not familiar.

Reduced to the simplest terms it is a tenotomy in which the tendon is sutured to the sclera in a position nearer to the equator of the bulb than its original insertion, thus giving a great and measurable increase in the length of the muscle. It can be readily seen that recession of the internal rectus will allow the operated eye to rotate outward while recession of the external rectus will allow the operated eye to rotate inward.

In doing a recession on the internal rectus, the incision in the conjunctiva follows the curve of the semilunar fold and the conjunctival flap is dissected forward to the cornea. The capsule of Tenon, either above or below the tendon is now button-holed and a muscle hook carried in under the muscle and out on the opposite side where the capsule is opened again and split on both sides from caruncle to tendon attachment. Trabeculae between muscle and eyeball

are separated. The tendon held with forceps is severed as close to its attachment as possible. Three sutures are then passed through the tendon and superficial scleral tissue at the points to which it is desired to recess the muscle. This scleral suturing is a delicate procedure but is perfectly safe if the point of the needle is kept in view while it splits the semitranslucent sclera. It is done with a special needle, made for the purpose, which prepares an ample opening for the 000 chromic catgut in the needle's eye to follow without tearing or the use of force. No injury has even been done to the interior of an eye by the use of this suture. The conjunctival edges can be included in these sutures, or the wound may be closed separately.

Recession of both internal recti will correct a deformity of 40 to 45°. Recession of both external recti for divergent squint will correct only about half as much due to the fact that the normal attachment of the external rectus is further back on the globe than is that of the internal rectus. It can be seen that recession must at times be combined with other measures as advancement, resection, or tucking of the opposite rectus muscle.

The advantages of recession are as follows:

1. The new scleral attachment is known, is permanent and can be easily found later if necessary.
2. There is a minimum of reaction, as the muscle is not disturbed except in its relation to the globe. The recession takes place within Tenon's capsule and blood and nerve supply are not interfered with.
3. It can be performed even at an early age with safety and with excellent results.

As can be readily understood, there are many additional and important details both as to choice of procedure and as to technique into which I will not and cannot go tonight. This little exposition will have served its purpose if some of those present have been convinced of the value at the earliest possible moment of the proper scientific management of all types of strabismus.

References

1. P. Chalmers Jameson, "The Surgical Entity of Muscle Recession," Archives of Ophthalmology, September 1931, Vol. 6, p.p. 329-361.

2. William Thornwall Davis, "The Modern Conception and Treatment of Concomitant Strabismus," *Kentucky Medical Journal*, August 1932.

PAIN-KILLERS IN OBSTETRICAL PATIENTS

By A. L. Smethers, M.D., Anderson, S. C.

Ever since the Creator ordained that the earth should be peopled through the passions of men, babies have been coming into the world. Conception is pleasurable; parturition, a pain. If it had been reversed, the earth might have been more sparsely populated, and there would not be the necessity for the N. R. A. to care for the unemployed.

To introduce you early to our subject, we direct your attention for a moment to pain. Pain is hard to define because it is subjective. There is no rod with which to measure it, and when we get through discussing it, we will know very little about it. However, pain is a warning that something in the human economy has gone wrong, either from injury or disease.

But what about labor pain? It seems to be a physiological process, or is the pain a warning that the physiological process of labor has been obstructed or otherwise interfered with? The hormones from the placenta, or pituitary, which start the machinery of labor, do not produce pain. Muscular contractions do not cause pain. Pain may be caused by over-contraction, or by over-fatigue from long, uninterrupted contraction. Pain does not dilate. Pressure does, and we are told that primitive women have very little, if any, pain in parturition.

Could it be possible, then, that pain is not an essential element in labor? If this is true, it behooves us, as professional men, to get busy and devise some method to keep woman-kind from such agonizing suffering. Women who have borne children have a standard by which they measure all pain. They compare all other pains with that of labor. For some reason, no one has devoted much time in research for a remedy to alleviate the suffering incident to child-bearing. Perhaps it is because the world

has assumed that it is part-punishment for Original Sin. We can see no reason why the medical profession should not try to kill, or at least lessen, the pain of parturition, just the same as any other pain.

We have always been interested in "parturition without pain," ever since the first baby we ever saw come into the world. From the study of Anatomy, Physiology, and Biology, we wise physicians conclude that it is impossible to have a baby without pain. In a short and limited career, we have known at least two women who never knew they were in labor until one expulsive pain delivered the baby. If a few women can birth babies without pain, why can we not learn some way to help other women to have at least a comparatively easy time, as they go to the dark hour when each would gladly give her life for her progeny.

Prevention is a big word in present medical practice. Women can be saved much pain by a correct diagnosis of the position, and the ability to change to a left-occipital-anterior position, if the child is not already in that position, and have the head well flexed. This is a problem of mechanics, and is not apropos to this paper. We do believe that when all doctors and midwives learn how to examine, know their findings, and how to cope with them, much useless suffering will be saved. We have no patience with those who insist on only a rectal examination. External examination can reveal much. A vaginal examination will give us all that can be learned about the situation, either as confirming the external examination or for further information, with little danger of infection.

Remedies

Cloroform has helped more women in labor than all other expedients put together, because every physician knows pretty well how to use it. Hence, there is no need to say anything further, than that the child is sometimes narcotized, and that it is frequently a factor in post-partum hemorrhage. It does sometimes slow the pains, and this lengthens labor. Properly administered, a sufficient quantity can be given during the last two or three expulsive pains, so that the mother will never know when her child was born.

Ether is used by some, but it acts too slowly

to give much relief unless administered almost continually, and this necessitates additional help. Its long continued use is considered deleterious to the kidneys, especially during pregnancy and labor. There may be some cases when ether is the indicated remedy to relieve the obstetrical patient. Ether and oil, per rectum, has been tried.

Morphia is one of the oldest, and in some respects the best, pain-killer we have. It is as serviceable in painful obstetrics as in pains caused by other troubles. In eclampsia we make large use of morphia, especially in connection with magnesium sulphate, not only to control the convulsions, but also the pain. We recall at this moment one such patient, who was narcotized by morphia and magnesium sulphate, whose baby was born alive without any consciousness of pain on the part of the mother. The baby was blue, but in twenty-four hours was normal in color, had no convulsions, and grew off rapidly. The mother's convalescence was slower than a normal convalescence, but this was due to a kidney deficiency rather than to the morphia.

Morphia is one of the principle drugs in the much-lauded "twilight sleep," and, we think, one of the least harmful of the drugs thus used. Twilight Sleep has largely gone into discard, but nevertheless it has had some good influences, and will at least pave the way for something more desirable. H. M. C. tablets are sometimes used instead of straight morphia sulphate.

Sodium Amytal, one of the Barbitol group, has rendered some good service, and so far we have discovered no bad effects. It may be administered by mouth, by rectum, or both. In primiparas who have not been properly educated, or have been misinformed by the village gossips telling tales of all kinds of accidents, gruesome experiences, etc., until the expectant mother is nervous and frightened, give three grains of sodium amytal by mouth, encourage the patient, and she will calm down so that for several hours she may be up and moving about the room in comparative ease. Approximately an hour before the end of the first stage, give from three to six grains of sodium amytal per rectum. This will sometimes so soothe the patient that she will go to sleep between pains and

be able to help herself by bearing down, particularly when the final expulsive pains come on. Sodium Amytal thus administered, with the addition of a few whiffs of chloroform toward the end of the delivery, will keep the mother from knowing when her baby came into the world.

Sodium Amytal. Case number one: Miss E. G., twenty-five; weight, ninety-seven pounds. Labor began about 8 P. M. on March 26. At 11:40, pains were coming every five minutes. The cervix was dilated to the size of a silver dollar. Sodium Amytal, six grains per rectum, were administered at that time. Pains continued at about the same regularity, or a little slower. The contractions of the uterus were of the same intensity. One hour after injection, patient went to sleep, and slept until delivery at 1:15 A. M. on the 27th, waking up only when the pain was on. Slept between the second and third stages, and shortly after the end of the third stage, she went to sleep again. There were no lacerations. There was only a slight post-partum hemorrhage, for which we administered ergotol after the expulsion of the placenta. The fetus weighed three and one-half pounds, pregnancy of seven months duration.

Case number 2: M. G. On the morning of the 25th of March, 1933, patient turned blind, and her sickness came on very freely. At this time, sabina and viburnum opulus were administered, knowing that she had been pregnant only about four months. This did not entirely stop the pains nor the bloody discharge. On March 29th, there seemed to be no possibility of stopping the abortion. At this time, a vaginal examination was made, revealing slight dilatation of the external os. The uterus was very low in the pelvic cavity. At 6:30 A. M., we gave one-fourth grain of morphia sulphate, which relieved the pain for about an hour. At 10:30 A. M., pains were coming every three minutes, with a one-finger dilatation of the cervix. Contractions of the uterus were very severe. At this time, six grains of sodium amytal were administered per rectum. Patient was nauseated, and at 11 A. M., a dose of magnesium phosphate was given in hot water. At 11:15, patient began to sleep between the pains. Patient had one-half cc. of pituitrin at 11:50 and was delivered at 12:20 P. M. Thirty

minutes after delivery, patient went to sleep, and slept three hours.

Pernocton, a ten per-cent solution of Sodium secondary Butyl-Beta-Bromallyl-Barbiturate, one cc. containing one-tenth of a gram of the active material, is said to be an effective analgesic in obstetrics. We have tried this remedy in a number of cases this summer. Some of the results will be detailed to you. The remedy may be used intra-venously or intra-muscularly. The dose is one and one-half grains to twenty-seven and one-half pounds body weight. It is needless to say that we stayed well within the regular dose. Administered intra-venously, it should be given very slowly, one cc. of the solution per minute by the watch, and should be interrupted when the patient falls asleep. In intra-muscular injection, the effects of the drug are delayed from twenty to forty-five minutes.

Case number one. To Mrs. R. L. G., seventeen years of age; weight, one hundred pounds; primipara. We administered pernocton intra-venously. Labor began at 11 P. M., April 16, 1933. She was delivered the next morning at seven A. M.—in labor eight hours. About two A. M., patient became restless, upset, nervous, and troubled. At 2:30, we injected 2.2 cc. pernocton into the brachial vein of the right arm, slowly. The patient went sound asleep by the end of the injection, which took about three minutes. For one hour, the patient slept continuously; the pains, four or five minutes apart, continued at the same rate they were before the injection. This was indicated by a frown, an occasional groan, and a noticeable contraction of the fundus of the uterus. The next hour, the patient would wake with the pain, but slept soundly between pains. Patient did not sleep any more, neither did she complain about the severity of the pain. At five o'clock, we thought another injection should be given, but mother objected and it was not done. According to later experience, we would have injected the second shot intra-muscularly. Observations: She went to sleep quickly, would jump and fling arms and sometimes feet, at intervals of five minutes. Could see no effect whatever on the new-born babe.

Case number two. Mrs. P. S., two Para., twenty years of age; weight 120 pounds; nervous and hard to manage at first delivery. Labor began at 10 P. M.; delivery at 1:10 A. M.

—labor, three hours and ten minutes. First stage completed at 12 o'clock. At this time, 2.2 cc. pernocton were administered intra-muscularly. In twenty minutes patient became drowsy, but did not go to sleep. Gave chloroform with each pain, the delivery being one hour and ten minutes after injection. She said she did not know when her baby was born. Her husband said she was not as nervous as at first delivery, neither was she any more nervous after the shot than before. The mother made an uneventful recovery. Baby was very blue on delivery, but very quickly regained its normal color. Blueness may have been due to the chloroform.

Another patient, in labor eighteen hours, was given one ampule of pernocton about forty-five minutes before the first stage was completed, which was at 5:25 P. M. She was tired and went to sleep ten minutes after administration, but awoke with each pain. Relaxation was complete between pains. She thought the shot was pituitrin, and whether psychological or not we do not know, but immediately the pains began to be harder and oftener. With the administration of chloroform every other pain, the mother was delivered at 5:15 P. M., but she was not conscious of the delivery until she heard the baby cry about five minutes later. Patient went sound asleep before the delivery of the placenta, and again ten minutes after the delivery. Baby had fine red color, and showed no ill effects of either drug.

Some six or eight other patients were delivered with pernocton, the results being similar to the cases detailed, and for the sake of brevity nothing more will be said, other than the fact that pernocton seems to me to be about the best single remedy in my experience, used to control patients in labor. Many other drugs for this condition are used, but our experience with them has been so limited that we are not mentioning them.

In concluding this paper, we wish to say that we are searching after a remedy for a much-neglected portion of suffering humanity, a condition in which eight or nine thousand mothers annually in this country alone give their lives for the sake of populating the globe. We feel chagrined that for so long a time we have done so little to lessen the pains of labor, and drive back the Grim Reaper, Death. We make an earnest plea for woman-kind.

SURGERY

Wm. H. Prioleau, M.D., F.A.C.S., Charleston, S. C.

"TREATMENT OF ACUTE INTESTINAL OBSTRUCTION BY SUCTION WITH DUODENAL TUBE

In acute intestinal obstruction of the adhesive type there has been developed a method of treatment which is effectual in the great majority of cases and thus does away with the necessity of operative relief which at best is unsatisfactory. Generally speaking, intestinal obstruction can be divided into two classes—that with strangulation and that without. In the former early operation still offers the only hope. Delay means gangrene with resultant peritonitis. In the latter class the problem is simpler. There is no circulatory obstruction. There is a simple blockage, paralytic or mechanical, of the small bowel. The intestines become greatly distended with fluid and gas. Relief of this distention is generally sufficient to restore the continuity and permit the passage of the contents in a normal manner.

Relief by operation involves freeing the adhesions which necessitates considerable handling of the distended and edematous loops, no doubt leaving them more completely paralysed than before. It then requires some time for the bowel to regain its tone and empty itself. In such cases it has long been known that a simple enterostomy is safer, more efficacious, and likely to be all that is necessary. It acts by decompressing the distended gut. Peristalsis is resumed and the continuity of the bowel restored. In a few cases it is necessary to operate to release a constricting band, but when the bowel has been decompressed the operation is comparatively safe and easy.

In brief, our primary object in this type of case is to decompress the bowel. According to some recent work this is accomplished by an inlying tube which drains the stomach and duodenum by continuous gentle suction. The tube

is of soft rubber 12-16 F with a catheter tip. The distal 10 cm. is perforated. It is passed through the nose and into the stomach so that the tip engages in the pylorus, thus it drains both the stomach and the duodenum. A continuous suction of about 50 cm of water is applied. The tube acts both by preventing the passage of fluids and air from the stomach through the pylorus, and also by emptying the duodenum. As the latter is emptied, the contents of the lower loop regurgitate upward and are withdrawn. This process continues until the intestine has been sufficiently decompressed for it to regain its tone. Generally the obstruction is relieved and there is an onward passage of the contents. At this time the tube may be withdrawn and the patient given fluids by mouth.

In some few cases the duodenal suction fails to give relief and it is necessary to perform an enterostomy. Sometimes it is later necessary to divide constricting bands, but this is much safer if the intestine has been first decompressed by duodenal suction or enterostomy.

This form of treatment is applicable only when no strangulation exists, especially in ileus following an operation, or in early or late post-operative adhesive obstruction. Where there is much doubt concerning the presence of strangulation, if the condition of the patient permits, an exploratory operation must be performed. The ileo-cecal valve, unless patent, would naturally prevent effective decompression by duodenal tube drainage in obstruction of the large bowel.

This is a partial resume' of an article by O. H. Wagensteen and J. R. Paine in the J. A. M. A. 101:1532 November 11, 1933. Their method of treatment gives promise of greatly reducing the mortality in intestinal obstruction without strangulation.

INTERNAL MEDICINE

J. H. Cannon, M. D., F. A. C. P., Charleston, S. C.

HYPERTHYROIDISM MASKED AS (A) MALIGNANT HYPERTENSION, (B) AURICULAR FLUTTER, AS ILLUSTRATED BY TWO CASES

Dr. Michael G. Wohl, Temple University and Philadelphia General Hospital. Medical Clinic N. A., November, 1933

In South Carolina, where Thyroid disorders are not as common as in the Great Lakes region for example, it is particularly important that we be on our guard for cases of disturbance of this gland. Of course the typical case is easily recognized, but it is the atypical condition that is always difficult for it is usually masquerading under symptoms pointing to some other organ as Dr. Wohl points out in the two cases he reports in his article.

The first case, a colored woman, age 34, cook, had good health until 1932 when following an upper respiratory infection of four weeks duration she noticed swelling of feet in evenings which by June had progressed up the thighs. She was admitted to Philadelphia General Hospital on August 5, 1932. Her complaints were dyspnea, swelling of feet and legs, and nocturia. She had lost 10 pounds in weight. Slight exophthalmos, thyroid not palpable, crepitant rales both bases, right hydrothorax, apex 6th interspace 13 cm from mid-sternal line, right border 5 cm to right, palpable systolic thrill over precordia, systolic apical blow, pulse 140, irregular, P2 greater than A2, B. P. 160/120, liver 3 fingerbreadths below costal margin, spleen palpably enlarged, dullness in flanks, BMR 39 per cent plus, trace albumin in urine, Sp. Gr. 1015, Secondary Anaemia, Wassermann negative, Blood Urea 10mgm. per 100cc blood. Electrocardiogram showed rapid Fibrillation; BMR 12 days after admission was plus 15 per cent and 13 days after was plus 13 per cent. October 10 limited exercise resulted in increase of pulse to 120 and a BMR October 14 was plus 21 per cent. Patient given Lugols Solution Mx T.i.d with

marked improvement and BMR fell to minus 4 per cent. Subtotal thyroidectomy was done with marked improvement in symptoms. Four months later reexamination showed BMR plus 7 per cent, pulse 92, B. P. 200/120, and she had gained weight. Pathological examination of removed gland showed hyperplastic goiter with lymphoid hyperplasia.

Dr. Wohl points out that here is a case of Cardiac Decompensation and Auricular Fibrillation, a not uncommon finding with hypertension and even after prolonged observation uncertainty existed as to whether this was the whole story or if hyperthyroidism complicated the picture. In his experience the BMR averages plus 27 per cent in hypertension so that the moderate elevation shown by this case was not of a great deal of help. However, the response to iodine was so definite as to justify operation and the histological examination of the removed tissue proved the diagnosis. It is worthy of note that the B. P. remained unaffected.

Case two Mr. E. M. age 56, first seen February 9, 1932 complaining of palpitation, extreme weakness, and periods of dyspnea. In the past year he had lost 20 pounds and become nervous and excitable. Increased responsibility in work resulted in increased ease of fatigue, restlessness, and attacks of palpitation were complained of. His previous health had been good. He had never used tobacco or alcohol. His weight was 169 pounds, B. P. 120/85, pulse 120. Apathetic appearance, moist skin, no exophthalmos or goiter, moist rales at both bases posteriorly, irregular heart action, apex 1.5 cm outside nipple line, dullness in 3rd left interspace, apical systolic blow, liver palpable 1 cm below costal margin, negative Wassermann, Secondary Anaemia, trace of albumin in urine, and Cardiogram showed Auricular Flutter with 2:1 block, with ventricular rate of 150. The flutter was converted to Fibrillation with digitalis but upon its withdrawal the flutter returned. BMR was plus 41 per cent. 15

minims each Tr digitalis and Lugols Solution T.i.d. and 10 days later the BMR was plus 21, pulse 90, but still fibrillating. Patient refused operation and X-Ray to gland tried and two weeks later BMR plus 14. Dr. Wohl believes that the flutter is due to the hyperthyroidism since no other cause could be found and because of his improvement on X-Ray and iodine therapy (Dr. Wohl was afraid to use quinidine which might have restored a normal rhythm, as the patient refused to be hospitalized). He emphasizes the frequency of cardiac disturb-

ances in hyperthyroidism and believes that next to mitral stenosis that it is the second common cause for fibrillation. Fibrillation occurred in one fourth of the cases of thyroid intoxication reported by Willius and his associates. He points out that cardiac decompensation and auricular fibrillation that fail to respond to the usual treatment should arouse suspicion of an underlying hyperthyroidism. Auricular Flutter is much less common than Fibrillation in hyperthyroidism.

BOOK REVIEWS

THE STORY OF CHILDBIRTH, by Dr. Palmer Findley, Illustrated, Doubleday, Doran & Co., Garden City, N. Y., \$3.00.

THE STORY OF CHILDBIRTH begins with the earliest known records in the valley of the Nile; it deals with superstitions, vagaries and atrocities of primitive peoples and with the taboos that have chained women for thousands of years to a dead past.

The chapter describing customs during labor among different races and nationalities including our North American Indian Tribes is most interesting. A few illustrative quotations follow:

"A remarkable example of human resistance is found among the Eskimos, where the woman about to become a mother leaves her hut, goes into the woods, and with her own hands digs a hole in the snow. With no food except a dried fish she remains in solitary confinement for a period of five days—The mother bathes the baby in snow or licks it with her tongue, wraps it in a skin and carries it to another hole in the snow, where she and the baby spend the remaining days of the lying in period. At the end of two months she throws away all her old clothing, puts on a new dress and makes a call at every hut." In this she is not so different from her civilized sister.

"The standing position is peculiar to many uncivilized races. It is now assumed among some of the Hindu tribes, the Silovians in the mountainous regions of upper Silesia, the Boers of Central Africa, in the Phillipine Islands and in Equatorial Africa. A partially suspended position is in common practice among many peoples. Some swing from a limb of a tree, some from a rope tied to the limb of a tree,

others cling to the neck of a helper while standing erect. The squaws of the Brule Sioux are confined in the midst of a motley crowd of Indians, the woman stands erect with her arms about the neck of a stout male supporter, preference being given to a young bachelor buck—Among some of our North American Indians the woman is tied to a post or tree and with her hands pinioned above her head, stands there until the child is born."

The subject of Birth Control is discussed frankly from the standpoint of the physician. Here the author proposes to have no concern with religious dogmas, and he asserts that modern woman, be she Catholic, Jew, or Protestant, is asserting her rights as mistress of her own body, and is claiming her right to protect those who are entrusted to her care.

The Author analyzes thoroughly the statistics on maternal and infant mortality and includes opinions of many authorities as to the cause of our own unenviable record.

In the section on operative obstetrics the Author, quite correctly, does not approve of the dual method for conducting labor now advised by some, one method to be practiced by obstetricians who are properly trained, the other to be followed by those who are not, however, he clearly indicates the importance of all physicians being properly trained before assuming such responsibility.

The work is unique, typographically it is a work of art. Scores of old wood cuts and photographs add greatly to its attractiveness. Says the Literary Guild, "it is a vitally interesting record of darkness, superstition and ignorance, as well as a valiant pioneering and scientific achievement." Those interested in

the history of medicine or those desiring an interesting survey of the prevailing customs in childbirth should add this book to their library.

Lester A. Wilson, M.D.,
11 Pitt Street,
Charleston, South Carolina.

THE SURGICAL CLINICS OF NORTH AMERICA. (Issued serially, one number every other month.) Volume 13, No. 5 (Chicago Number—October 1933) Octavo of 254 pages with 93 illustrations. Per clinic year, February 1933 to December 1933. Paper, \$12.00; Cloth, \$16.00 net. Philadelphia and London: W. B. Saunders Company, 1933.

Among the interesting contributions to this volume we note the following comments on the opening page. The impetus given to surgical work in children in recent years has suggested the presentation of a group of clinics illustrating the more frequently encountered surgical conditions in infancy and childhood. Included in the Symposium are the following clinics:

Loyal Davis: The Intracranial Tumors of Childhood.

Richard J. Tiven: Acute Mastoiditis in Children: Its Etiology, Pathology, Diagnosis and Treatment.

Raymond W. McNealy: Cystic Tumors of the Neck: Branchial and Thyroglossal Cysts.

Ralph Boerne Bettman: Treatment of Acute Empyema.

Edwin M. Miller: Emphasis on Certain Phases of the Treatment of Congenital Pyloric Stenosis.

Albert Horr Montgomery: Intussusception.

Herman L. Kretschmer: Surgery of the Urinary Tract.

Fremont A. Chandler: Congenital Dislocation of the Hip.

TREATMENT OF THE COMMONER DISEASES MET WITH BY THE GENERAL PRACTITIONER, by Lewellys F. Barker, M.D., Professor Emeritus of Medicine, Johns Hopkins University; Visiting Physician, Johns Hopkins Hospital, Baltimore, Md., J. B. Lippincott Company, Philadelphia, London, Montreal.

This book has been written for the general practitioner and the author states that the men who engage in general practice still constitute by far the majority of physicians; they are, and will continue to be, the very backbone of our

profession without which the total organization would, for the present at least, be inconceivable.

The chapter headings are as follows:

I. Advances in the Methods of Studying Patients.

II. On Some of the Commoner Infectious Diseases.

III. Commoner Disorders of the Respiratory System.

IV. Commoner Disorders of the Circulatory System (Heart and Blood Vessels).

V. Commoner Diseases of the Blood and of the Bloodbuilding Organs.

VI. Commoner Diseases of the Digestive Apparatus.

VII. Commoner Diseases of the Kidneys and Urinary Passages.

VIII. Commoner Diseases of the Locomotor System.

IX. Commoner Nervous and Mental Diseases.

X. Commoner Diseases of Metabolism and of the Endocrine System.

MEDICAL CLINICS OF NORTH AMERICA. (Issued serially, one number every other month.) Volume 17, Number 1. (Cleveland Clinic Number—January 1934) Octavo of 253 pages with 53 illustrations. Per Clinic Year July 1933 to May 1934. Paper, \$12.00; Cloth, \$16.00 net. Philadelphia and London: W. B. Saunders Company, 1934.

One of the great clinics of the world is that in Cleveland and this volume is representative of the fine work done there. A distinguished authority in this country is Dr. Henry J. Johns on Diabetes and he has given a splendid chapter on Diabetes in Children and in Adults Past the Age of Fifty Years. He outlines the history and treatment of eighteen cases.

An important contribution particularly for the general practitioner is by Dr. C. L. Hartsock on The Treatment of Digestive Disturbances in Asthenic Patients. Under the head of treatment the author approaches the case from nine standpoints as follows: (1) psychotherapy, (2) rest, (3) treatment of general conditions, such as foci, etc., (4) diet and gain of weight, (5) care of bowels, (6) medication; general, glandular, vitamin preparations, (7) physiotherapy; exercise, baking, massage, colon irrigations, supports, (8) surgery, and (9) regulation of life and prophylaxis.

SOCIETY REPORTS

COLUMBIA MEDICAL SOCIETY

The regular meeting for the election of officers was held at the Columbia Hotel Crystal Room on December 11, 1933, at 8:30 P. M. Dr. F. M. Durham presiding. Minutes of the preceding scientific meeting was read and adopted.

Dr. S. E. Harmon read the revised fee bill for the care of the indigent sick in South Carolina.

The election of officers was next in order. Drs. Lide and Hart acted as tellers. Dr. E. L. Horger was elected president for the year 1934. After being escorted to the chair, Dr. Fred Williams made a short talk on Dr. Horger's election, and Dr. Horger responded with thanks to the honor bestowed upon him. Dr. H. H. Plowden was elected Vice President. Dr. Benjamin Rubinowitz was reelected Secretary and Dr. Thomas D. Dotterer was elected Treasurer.

Dr. Roger D. Doughty was elected to serve in the house of delegates for a period of one year to fill the unexpired term of Dr. Horger who automatically becomes a delegate as president of the society. Dr. T. A. Pitts is a hold over to serve another year (1934). Drs. Lindler, Josey, and O. B. Mayer were elected to the house of delegates for two years.

Dr. M. E. Hutchinson was elected to serve on the board of censors for three years. The hold overs on the board are Dr. B. D. Caughman, Chairman to serve one year (1934) and Dr. R. G. Doughty to serve for two years.

Dr. Horger stated that he would appoint the various committees at the next regular meeting of the society.

There were 52 members present.

Society adjourned at 9:45 P. M.

Respectfully submitted,

Benjamin Rubinowitz, Secy.

Per L. D. D.

SOUTH CAROLINA PEDIATRIC SOCIETY

The annual meeting of the South Carolina Pediatric Society was held at the Colonial Hotel, Florence, S. C., Tuesday, January 30, 1934. Meeting was called to order by the president at 11:30 a. m. The bitterly cold weather prevented some of the members from distant parts of the state from being present, but the attendance was most encouraging. Following a few preliminary remarks, Dr. J. I. Waring, the President, gave the first paper on THE NEWER CONCEPT OF ALLERGY, which was well received and fully discussed. The first guest speaker of the occasion was Dr. Alfred Shands of Duke University who led a discussion on MINOR ORTHOPEDIC CON-

DITIONS IN CHILDREN. Exhibiting various orthopedic appliances and plaster models, the speaker held the full attention of his audience throughout his presentation. He answered many questions in closing. Dr. Olin Chamberlain of Charleston followed with a paper on CHOREA AND HABIT SPASMS. Dr. Christ Johnson of Duke University, another invited guest, then gave an address on CARDIAC DISEASES IN CHILDREN which was well received and fully discussed. The election of officers followed: Dr. J. P. Price, Florence, President; Dr. Wm. Weston, Jr., Columbia, Vice-President; Dr. L. B. Salters, Florence Secretary. Following the business session the meeting adjourned to the dining room where lunch was enjoyed by all.

J. P. Price, Sec'y.

COLUMBIA MEDICAL SOCIETY

The regular scientific meeting of the Columbia Medical Society was held at the Columbia Hotel on February 12, 1934. The meeting was called to order by the president, Dr. E. L. Hoeger, at 8:30 P. M.

There was no clinical case reports.

The first paper of the evening was presented by Dr. James A. Hayne, his subject being "Malarial Control and Community Sanitation." He gave briefly the history of malarial control and the present method as outlined by the Board of Health. He stated that a number of drainage projects have been in progress with government funds since December 1, and the sum expended so far has been about \$113,000, and that this work will continue through the month of May. He stressed the fact that it is impossible to drain all areas, and eradicate Malaria from our midst, and that the best we can do is to control it. Screening of houses properly, oiling and spraying of breeding places, and rendering the human carrier free from the Malarial parasites in the blood, are the other methods for the control of Malaria.

Dr. Hayne outlined the program of community sanitation. A proper sewerage system has been stressed, and that the erection of over 6000 sanitary privies have been built since December 1, 1933. Before the Federal project was launched with the aid of C. W. A. funds, about 23,000 of these privies have been built since January of last year. All were constructed on the plans of the U. S. Public Health Service, which are the plans of the State Board of Health also.

The paper was discussed by Dr. F. M. Durham and Dr. S. B. Fishburne, and in closing Dr. Hayne remarked that to date 130,000 people were effect-

ed, and that nine district supervisions, fifty-seven projects, and about 2500 laborers were at work on these projects.

The second paper was presented by Dr. Bruce Mayne, Special Expert at the State Hospital, his subject being, "Some Observations on the Recent Sleeping Sickness Epidemic of St. Louis." Dr. Mayne is at present connected with the State Hospital Laboratory experimenting and studying Malarial therapy for Paralysis of the Insane. Last year Dr. Mayne was sent to St. Louis to study the sleeping sickness epidemic.

Dr. Mayne defined the term Encephalitis as an inflammatory condition of the brain, and at the end of the world war a number of cases which were characterized by laziness and sleepiness, therefore the term Lethargic Encephalitis. This term is now abandoned and Epidemic Encephalitis used instead, because of excited stages that appear in this condition, and too that this condition occurs in epidemics in the larger cities. He stated that the death rate last year was more than that of poliomyelitis, the death rate being about 20 per cent or more. In St. Louis this past Summer there was evidence of Cerebral and Meningeal signs, and that the incubation period was from five to twelve days, with onset usually sudden, one to three days. Headaches, chill, high fever, intestinal disturbances, vomiting and diarrhea was the usual onset. An apathetic stupor expression with moderate stiff neck followed. In the more severe cases a tremor was present. An irregular paralysis and sometimes hemiplegia followed. The toe signs were positive. Comatose and delirious states were also evident. There were some myocardial disturbances. The spinal fluid was usually clear with increased lymphocytic cells.

Dr. Mayne said that this disease was impossible to control, and that the cause was an unidentified filtrable virus, and that they were successful in inoculating a certain type of monkey enough to produce the symptoms. The other animal susceptible was the white mouse. Rabbits and Guinea pigs were uniformly negative. Some species of mosquitoes were experimented with, but were unable to transmit. Human to human by agency of mosquito was attempted but failed.

The discussion of Dr. Mayne's paper was opened by Dr. Hayne who stated that this disease is entirely different from the Lethargic Encephalitis that occurs in this state. The paper was closed by Dr. Mayne.

There were no announcements.

There were thirty-six members and six visitors present.

The meeting was adjourned at 10:15 P. M.

Respectfully submitted,

Benjamin Rubinowitz, Secretary.

PROCEEDINGS OF THE REGULAR MEETING OF THE MEDICAL SOCIETY OF SOUTH CAROLINA, WHICH WAS HELD AT ROPER HOSPITAL TUESDAY EVENING, JANUARY 3rd, 1934, AT 8:30 O'CLOCK

The meeting was called to order by the President, Dr. Francis B. Johnson.

Present: Doctors: A. E. Baker; A. E. Baker, Jr.; Ball; Banov; Beach; Beckman; Boette; Bowers; Brenford; Burn; Cain; Cannon; Cathcart; Chamberlain; Deas; de Saussure; Gantt; Hope; Jenkins; F. B. Johnson; Lynch; McCrady; McInnes; Maguire; Martin; Mazyek; Mitchell; Mood; O'Driscoll; Pearlstine; Peebles; F. R. Price; W. H. Price; Prioleau; J. J. Ravenel; Rhame; Rudisill; Rutledge; Sams; Sanders; Scott; W. A. Smith; W. H. Speissegger; Steinberg; Sughrue; Taft; E. W. Townsend; J. F. Townsend; Waring; Whaley; I. R. Wilson, Jr.; Robert Wilson; Robert Wilson, Jr.; Zerbst; Seigling. (55).

Guests: Dr. R. E. Abell, President of the South Carolina Medical Association; Dr. William Eggleston, President-Elect of the South Carolina Medical Association; Dr. E. A. Hines, Secretary of the South Carolina Medical Association; Captain Stoope, of the U. S. Navy; Dr. Lassek and Dr. R. E. Remington of the Medical College; and Dr. W. A. Black, of Beaufort.

The minutes of the meeting of January 9th were read and confirmed.

Under Reports of Officers and Committees, Dr. F. G. Cain, Chairman of the Committee on Public Health and Legislation, reported as follows:

Mr. President and members of the Medical Society of South Carolina:

Your committee on Public Health and Legislation desires to make the following recommendation relative to the attached letter from the Committee of Legislative Activities of the American Medical Association, forwarded by way of the South Carolina State Committee: We recommend that a letter, on the subject of veteran hospitalization, signed by the Secretary and having the seal of our Society, be transmitted to the Hon. Thomas S. McMillan and one each to Senators E. D. Smith and James F. Byrnes. We attach herewith a form letter which we believe to cover the subject as it should be presented to the members of Congress.

We noted that your committee was empowered to act but feel that these letters had better come officially through the secretary of the Society.

F. G. Cain
A. J. Buist, Jr.
F. L. Parker

Form letter.

To the Senators and Representative
Dear Sir:

It having come to the attention of this Society

that there is a movement before Congress for an increased activity toward federal hospitalization of veterans who have not established service-connected-disability, we are earnestly requesting that you use your utmost effort to prevent the passage of legislation for this purpose.

We submit the following reasons for our disapproval of such activities, namely:

1. Increased burden upon the tax-paying public.
2. Class legislation in favor of a comparative few.

3. Interference with the legitimate rights and expectations of civilian hospitals by withdrawal of clientele.

4. Statistics show that there are already ample hospital facilities for all purposes in the United States.

Yours very truly,

Seal

Secretary.

It was moved, seconded and carried that this report be adopted, the letter be written by the Secretary and transmitted to the proper officials.

Dr. M. W. Beach, Chairman of the Committee on the Anti-Diphtheria Campaign, reported that the work was progressing satisfactorily but that the committee was experiencing some difficulty in handling the indigent and had made application to the Relief Administrator for assistance in this. He read the following letter from the Relief Administrator which had been received by Mr. Grice and transmitted to him.

South Carolina Civil Works Administration and
Emergency Relief Administration, Columbia, S. C.

18 January 1934

Mr. E. P. Grice, Jr. Adm.,
Charleston County C.W.A.
Charleston, S. C.

Dear Mr. Grice:

Replying to your letter of Jan. 15 in regard to paying from Emergency Relief Funds for Toxide treatment for that group of children who are not able to pay for same:

I feel obliged to say that we cannot allow this expenditure. Although I am very much interested in this campaign that Dr. Banov is putting on, I do not believe we would be justified in paying for Toxoid or for the services of physicians to render this treatment.

Some time back the question of buying Toxoid and typhoid vaccine came up. A few counties took a small amount before it was disallowed by the State Relief Administration. It seems to me that your local doctors would be perfectly willing to have Dr. Banov treat that group of children who cannot pay for this treatment. If this campaign has any educational results the local doctors will certainly profit in a remunerative way so I do not see why there should be any objection to

Dr. Banov treating that group who cannot afford this treatment.

I think the State Board of Health carried in their budget funds for the purchase of Toxoid, but I doubt if they have any money for this now, however, surely Dr. Banov would have a fund from which he could purchase the Toxoid for a small group.

Yours truly,

S. C. Civil Works Adm.,
by direction of M. J. Miller, Adm.,
Mrs. Elizabeth R. Barnwell
Director of Women's Work.

This was received as information.

The Secretary stated that he had received a letter from Dr. Paul H. Culbreath requesting transfer of his membership in this Society to the Aiken County Medical Society. On motion, it was directed that this request be granted.

The Secretary, at the request of Dr. A. J. Buist, Chairman of the Advisory Council on Medical Relief, read the following letter from Mr. E. P. Grice, local Relief Administrator:

January 13, 1934

Dr. A. Johnston Buist, Chairman
Advisory Council, Medical Society
State of South Carolina
279 Meeting Street
Charleston, S. C.

Dear Dr. Buist:

Replying to your letter of January 8th, 1934, I am today advising Mr. Bennett that the fees proposed by the State Administrator of the Federal Emergency Relief Administration, Mr. J. M. Miller, has been approved by the Charleston County Medical Society.

Apparently, some of the doctors have an erroneous impression as to the procedure to be followed in the matter of medical care. I would suggest that you notify them that the request for care, as far as the doctor is concerned, must be initiated by the Social Workers and Investigators under Mr. Burnett's direction.

If an emergency arises, of course, the doctor called would attend to the emergency whether or not he would be later reimbursed. But in the event that emergency calls are received after hours by the doctor, he should then call 4582 the following morning and report the case which would be promptly investigated and if the patient, according to our records, was entitled to free medical care or at least medical care paid for by the Emergency Relief Administration, the doctor would then receive a slip properly signed authorizing the visit previously made as well as the number of subsequent visits apparently necessary at that time.

Some of the doctors have sent down as many

as fifteen requests for what they have termed "release slips."

The only way that this question can be properly and honestly handled is for the investigating Department under Mr. Bennett's direction to certify as to the need of the family. While it is true that employment under the old unemployed effort was practically *prima facie* that the patient worker was really in destitute circumstances. But this does not necessarily apply under the C.W.A., and practically all of our workers are now under the C. W. A.; and as far as Charleston County is concerned, we certainly do not intend to pay medical or any other sort of bills for persons who are working on the C. W. A. Some of the workmen are making more than the doctors and they ought to be able to pay their own medical bills. Our Investigating Department is charged with the responsibility of ascertaining the facts in each individual case.

Practically every "relief" case that we are handling here, we are putting in food, clothes and fuel, etc. Each case is visited, personally, every two weeks and oftener when necessary and except in the case of emergency, we will have to require that the doctor receive his call from the Investigator rather than from the patient; and if you will request the physicians of the City to so notify the patients it will assist materially.

The list you were kind enough to enclose of those physicians who will serve has been handed to Mr. Bennett and each worker will have a copy of this list.

I will endeavor, in each instance, to secure for the patient the physician of his choice. If the patient has no choice, we will then take them in rotation.

Cordially yours,

E. P. Grice, Jr., Administrator.

This was received as information.

The Secretary read the following letter from the Health Officer:

Officers and Members, January 22, 1934
Medical Society of South Carolina
Charleston, S. C.
Gentlemen:

In a recent conversation with Mr. Edmund P. Grice, County Administrator for Relief, he expressed a definite interest in a County-wide venereal disease control program, and promised serious consideration of such a project if presented in a practical way.

In view of the wide prevalence of venereal diseases in our City and County, I feel that we should make an effort to get Federal aid for a practical campaign against this type of ailment; and I would respectfully request the cooperation of your Society in formulating the plans for such a project.

Your Society may either apply through a committee for such a project, or else endorse a project suggested by the Department of Health.

In either event, I would request that you appoint a working committee of three to either formulate or help us to formulate plans for a venereal disease control campaign on a County-wide basis.

Yours very truly,

Leon Banov, M.D.,

Health Officer.

It was moved that this be received as information and that the Chair appoint a committee to cooperate with the Health Officer in the proposed campaign against venereal diseases. The President appointed the following committee: Dr. O. B. Chamberlain, Dr. J. J. Ravenel and Dr. R. B. Gantt.

The President announced that a meeting of the Tri-State Medical Association would be held at Charlottesville, Virginia, on February 12th, 13th and 14th, and he urged the members of this Society to attend if possible.

The Secretary stated that he had been requested to announce that the South Carolina Pediatric Society would meet in Florence on Tuesday, January 30th.

At 9:00 P. M., the Scientific Session was called.

Dr. Kivy Pearlstine showed two cases of Berger's Disease and outlined the treatment. This was discussed by Drs. Townsend, Deas and Lynch, Dr. Pearlstine closing.

The President then introduced Dr. Robert E. Abell, President of the State Medical Association. Dr. Abell addressed the Society on "The Future of the South Carolina Medical Association."

Dr. Johnson then introduced Dr. William Eggleston, President-Elect and also Chairman of the State Board of Health. Dr. Eggleston addressed the Society on the work that the State Board of Health was doing.

The President then introduced Dr. Edgar A. Hines, Secretary of the State Medical Association, who discussed the necessity of medical leadership in the present economic depression.

There being no further business, the meeting adjourned.

W. A. Smith, M. D.,

Secretary.

**PROCEEDINGS OF THE REGULAR MEETING
OF THE MEDICAL SOCIETY OF SOUTH CAROLINA,
WHICH WAS HELD AT ROPER HOSPITAL
TUESDAY EVENING, JANUARY 9th,
1934, AT 8:30 O'CLOCK**

The meeting was called to order by the President, Dr. Francis B. Johnson.

Present: Doctors: B. R. Baker; Banov; Barnwell; Beach; Beckman; Bowers; Branford; A. J.

Buist; A. J. Buist, Jr.; Burn; Cain; Cathcart; Chamberlain; Deas; de Saussure; Gantt; Hiott; Hope; Jenkins; F. B. Johnson; Lynch; McCrady; McInnes; Maguire; Martin; Mazzyck; Mood; Moore; O'Driscoll; Pearlstine; Peeples; F. R. Price; Prioleau; J. J. Ravenel; W. J. Ravenel; Rhame; W. M. Rhett; Richards; Rudisill; Rutledge; Sanders; Scott; J. E. Smith W. A. Smith; W. H. Speissegger; Steinberg; Sughrue; E. W. Townsend; J. F. Townsend; Van de Erve; Waring; Whaley; Wild; I. R. Wilson; I. R. Wilson, Jr.; R. Wilson; R. Wilson, Jr.; Zerbst; Siegling. (59).

Guests: Captain R. E. Stoops, of the U. S. Navy; Dr. Lassek and Dr. Hoke of the Medical College.

The minutes of the meeting of December 26th were read and confirmed.

Under Reports of Officers and Committees, Dr. A. J. Buist, Chairman of the Advisory Council on Medical Relief, stated that he desired to make a report on the progress the Council was making. He stated there were three organizations under the Relief Administration: The E. R. A., the P. W. A. and the Transient Bureau; that the members of this Society who had signified their willingness to accept the fees agreed upon between the State Medical Association and the Federal Relief Administrator were interested in the E. R. A. and the P. W. A., the Transient Bureau having its own physician, Dr. H. J. Bowen, who was employed on a salary basis; that the unemployed working under the E. R. A. had the right of choice of their own physician from the list furnished by the Advisory Council from the members of this Society who were willing to act in such capacity. Should the individual not have any particular choice of a physician, the Relief Administrator would select a physician from this list by a certain order, so that each man would have the opportunity to gain some of the work.

The situation with the P. W. A. is somewhat different. Should unemployed under this organization become injured or sick they were entitled by law to treatment, and if totally incapacitated, to a pension. Treatment would preferably be given in the Government hospitals. Where this type of hospital was not available, the doctors would be employed on the same basis as in the E. R. A., but in addition, where hospitalization was necessary, this would have to be furnished by the local Relief Administrator. He said that he had asked the Hospital to cooperate, by calling physicians on the list as agreed upon with the Relief Administrator, namely that the individuals select their own physicians; if unable to obtain these, then the other physicians in rotation, the Hospital to be furnished with the same list as given to the headquarters of the Administration. He outlined the mode of procedure as follows: A permit is given to a patient to consult a doctor, the doctor signs this and attaches it to his bill

when this is ready for presentation. The unemployed has to apply for a permit. In an emergency, a disabled unemployed can apply for a permit by telephone (the number of the telephone being 4592). An inspector will then be sent and if he deems the case worthy the permit will be issued to obtain a physician. This procedure is set forth in the article of the American Medical Association Journal of September, 1933.

The Chairman stated that he had discussed with Mr. Grice, the Relief Administrator, the necessity of having individuals employed under the P. W. A. examined before being engaged for work. As these men were entitled to medical care and hospitalization, and also for compensation for injury or occupational disease, he felt that the Government should protect itself by having them examined previous to employment. Mr. Grice agreed that this was a good thing and said that he would make an attempt to put it on. If this is done, physicians will be paid for this examination as previously outlined and according to the fee bill.

Dr. Buist stated that the x-ray fee of three dollars was discussed with the Administrator, he having pointed out to him that this did not cover the expense of an examination, and he made an arrangement with him that this fee should be paid for each film taken, and not for the total examination. He felt that the Hospital would break even on this basis, although it would not make any profit. A physician has no right to send patients to be x-rayed, the permit for this must be obtained through headquarters. He stated that the plans were now in operation and that the men on the list would probably obtain some work from time to time. He read the following letter:

Mr. E. P. Grice Administrator
Emergency Relief Administration
Charleston, S. C.

January 8th, 1934

Dear Sir:

The South Carolina Medical Society (Charleston County Medical Society) having complied with the fees agreed upon by the State Administrator we will be glad if you will put the matter of medical attendance upon the members of the unemployed and those who are working under the C. W. A. into practice.

I am enclosing a list, with the addresses and office telephone numbers of the members of the Medical Society who have agreed to abide by the fee schedule. My understanding is that the person in need of medical attention will have the choice of their physician and where the person has no choice the cases will be assigned in rotation to the physicians mentioned in the enclosed list.

As far as the fee for x-ray work is concerned I am waiting word from you as to whether the

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VOL. XXX.

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REASONS WHY YOU SHOULD SPECIFY

continued from last month

"Care is taken to discard diseased or decomposed livers, and the selected ones are usually freed from the gall bladders and adequately washed from 1 to 36 hours."

"It is absolutely essential that medicinal cod liver oil should be produced by steam-

ing fresh livers immediately they have been taken out of the fish. Further, the period between the death of the fish and removal and steaming of the livers should be reduced to the absolute minimum. There appears to be no likelihood of any simple means by which deterioration of the stored livers can be resisted, and we are convinced that the practical method is to organize the industry so that delay in producing the oil after the fish have been caught is as far as possible eliminated." "Medicinal oil is prepared in Newfoundland from the livers of cod caught inshore. Within an hour or two of being caught the fish are gutted and the livers are in practically every case steamed immediately. A factory manager who permitted livers to lie about would soon be penalized by suspension of the license. In nearly every factory several boilings a day are carried through."

3. Importance of Fresh Livers and Immediate Preparation of Cod Liver Oil for Medicinal Purposes*

to be continued

*J. C. Drummond and T. P. Hilditch: The Relative Values of Cod Liver Oils from Various Sources, His Majesty's Stationery Office, London, 1930.

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OF THE

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EDITORIAL

SOME HIGH SPOTS OF THE CHARLESTON MEETING, MAY 1, 2, 3

Our Guests

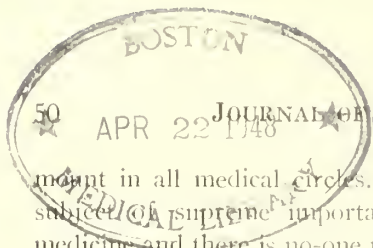
The State Medical Association through its President rarely fails to be favored with guests of outstanding ability and reputation. This year is no exception to the rule as will be seen by the following comments:

Dr. Fred W. Rankin, of Lexington, Kentucky, will deliver the address on surgery, the title of which is as follows: "The Diagnosis and Surgical Treatment of Malignant Lesions of the Large Bowel." It is not too much to say that Dr. Rankin is today one of the ablest authorities in the world on the subject he has chosen to speak to the Association about. Every member of our Association is familiar with his name and fame. First of all, he is a native of the neighboring state of North Carolina. He was formerly Associate Professor of Surgery, University of Minnesota, Mayo Foundation. At present, he is the attending surgeon at the

St. Josephs and the Good Samaritan Hospitals in Lexington, Kentucky. Dr. Rankin is author of the well known text books, "The Colon, Rectum and Anus" (Saunders) "Surgery of the Colon" (Appleton).

Dr. J. M. McCord is well known throughout the United States for his leadership in post graduate medical education in obstetrics and allied subjects. He will speak to our Association on "The Conservative Treatment of Eclampsia." Dr. McCord is Professor of Obstetrics and Gynecology, Emory University School of Medicine, Atlanta, and Special Consultant, Children's Bureau, Washington, D. C. We in South Carolina have long been interested in endeavors to reduce the high maternal and infant mortality rate. The State Medical Association keeps this subject in mind on its programs almost constantly. Our guest this year is peculiarly fitted to inspire further efforts along this line.

Dr. R. G. Leland of Chicago comes to us at a time when economic discussions are para-



ment in all medical circles. It is a dynamic subject of supreme importance to organized medicine and there is no-one more competent to advise with us than Dr. Leland. He will speak on "The Trend of Medical Economics." Dr. Leland is director of the Bureau of Medical Economics of the American Medical Association. He was assistant director, Bureau of Health and Public Instruction of the American Medical Association, 1927 to 1930; and chief of the Division of Hygiene, Ohio State Department of Health, 1920 to 1926. He is author of "The Costs of Medical Education, Student's Expenditures," "Income from Medical Practice," and "Contract Practice," and co-author with A. M. Simons of "Medical Relations under Workman's Compensation."

The program of papers by members of the State Association has about been completed as reported by Dr. Kenneth M. Lynch, Chairman of the Committee. The number of papers has been limited so that the schedule may be completed by midday on Thursday the last day of the meeting.

It is expected that the commercial and scientific exhibits will be unusually attractive due to the fact that Charleston is a medical center well known throughout the country and all of the meetings of the Association there give opportunity not enjoyed by many other cities for emphasizing this phase of our programs.

The entertainment features have been planned with great care and will center around the President's reception and ball on Wednesday evening.

The program committee decided this year not to have an open public health meeting, this feature having been stressed for a number of years at other meetings.

The ladies will be entertained in the usual hospitable manner peculiar to Charleston and it is expected that a large number will be present.

The Francis Marion Hotel will be Headquarters but there are many other hotels in Charleston with ample accommodations recommended by the local committee on arrangements.

The House of Delegates will convene at the Francis Marion Hotel, Tuesday evening, May 1st.

THE AMERICAN LARYNGOLOGICAL, RHINOLOGICAL AND OTOLOGICAL SOCIETY, Inc., MEETS IN CHARLESTON, APRIL 3, 4 AND 5, 1934

The program of the National Association of which Dr. J. W. Jervey, of Greenville, is the President, is just off the press and it is our pleasure to call attention to the enviable scope of the deliberations of this great society. In looking over the program we are impressed with the large number of features that should be of keen interest to every member of the South Carolina Medical Association regardless of the special field in which he may be working. President Jervey requests the Journal to make it known that every member of our Association will be welcome to attend the meeting in Charleston. The very first number on their program is worthy of more than ordinary consideration for it is to be a Symposium on The Newer Clinical Approaches in Otolaryngology. Dr. William Weston leads off as the first speaker on Nutritional Influences. Dr. Weston will discuss among other things the effects of mass dietary factors of the Japanese people. Then the second paper is on Sympathetic Influences (Autonomic Level) by Dr. Francis Blackmore, Columbus, Georgia and the third on Insulin Therapy by Dr. Samuel M. Beale, Sandwich, Mass. The entire program calls for fourteen papers and they cover a wide range of scientific interest. There is one other subject which every doctor in South Carolina might well listen to with edification, The Effect of Severe Illness Upon the Hearing by Dr. Edmund Fowler, of New York. The discussion will be opened by Dr. Robert Wilson of Charleston. This paper discloses the results of the study of a thousand seriously ill patients as to their hearing. The study extended to autopsies on these patients.

The entertainment provided will be unique. The annual dinner will be in the nature of a Southern Barbecue. Then a Complimentary Concert will be given under the auspices of the Society for the Preservation of Spirituals.

The general meeting will open at the Francis Marion Hotel, which is Headquarters, promptly at nine A. M., Tuesday, April 3rd. We bespeak a large attendance of the members of the South Carolina Association.

ORIGINAL ARTICLES

OPERATIVE TREATMENT OF INFANTILE HYDROCEPHALUS

R. G. Doughty, M.D., Columbia, S. C.

The basis of all operative procedures is an understanding of the normal anatomy and physiology as well as of the pathological processes of the parts involved. This is especially true in congenital deficiencies because without an accurate visualization of the normal it would be, of course, impossible to undertake to correct the abnormal. Hydrocephalus is caused by a structural defect which may be the result of malformation, trauma, or infection. It is necessary, therefore, to briefly review the anatomy and more especially the physiology of the cerebro-spinal fluid system in order to understand what the structural defects are and how to correct them.

In each hemisphere of the cerebrum there is an irregularly shaped cavity called a ventricle. These two lateral ventricles communicate with a third cavity lying beneath and between them. The floor of this third ventricle is exceedingly thin and is the floor of the brain in the short area between the optic chiasm and the mammillary bodies. A rather long duct, the aqueduct of Sylvius, leads from the third ventricle into the fourth ventricle, which lies beneath the body of the cerebellum. Festooned from the walls of each cavity is a group of blood vessels called the choroid plexus, whose function is the secretion, or formation, of cerebro-spinal fluid in which the plexus floats. From the fourth ventricle there are three openings, the foramina of Magendie and Luschka, which permit the passage of the cerebro-spinal fluid from this ventricle to the sub-arachnoid space.

The sub-arachnoid space is that space lying between the arachnoid membrane and the pia mater, the latter being densely adherent to the brain. The arachnoid membrane absorbs the spinal fluid which is secreted by the choroid plexus in the ventricles.

It is quite obvious that a block of the foramina of Magendie and Luschka would result in a constantly increasing pressure in all of the four ventricles and, that a block or lack of development of the aqueduct of Sylvius, would give rise to a similar distention of only three ventricles. Such a distention of the ventricles is called an internal or, better, a non-communicating type of hydrocephalus. A congenital absence of the arachnoid membrane in an otherwise normal brain results in an accumulation of the fluid outside the brain because the rate of absorption is less than that of secretion. This is the so-called external or communicating type. Occasionally where there is a block, due to a congenital defect of the ventricular system, there is also an absence of the arachnoid over the brain area.

The non-communicating type, or that due to a block of the fluid system within the brain, is usually found to be caused either by a congenital absence of the foramina of Magendie and Luschka, an absence, or stricture, of the aqueduct of Sylvius, or to the obliteration of one or more of these openings as a result of trauma or infection. In infancy the trauma is almost always hemorrhage, due to a birth injury, while meningitis may result in adherence of the arachnoid to the brain over the foramina of Magendie and Luschka at any age. Since we are limiting the discussion to hydrocephalus in infancy we will disregard tumors, etc., which almost never occur until childhood or later.

Since no adequate operative procedure has been worked out for the so-called external, or communicating hydrocephalus, we will not discuss this type further. In the obstructing type the problem resolves itself into, first:—the demonstration of a competent arachnoid and second:—the selection of a site which will permit an opening of permanent character between a ventricle and the sub-arachnoid space. This site should be both accessible and at a point where the arachnoid naturally falls away from the brain, otherwise, its adherence to the margins of the brain wound would force the

fluid discharging from the ventricle into the subdural space where no absorption would occur.

Dandy pointed out that the lateral wall of the floor of the third ventricle met all of these requirements. At this point the ventricular wall is so thin, and so devoid of neuroglia, that there is a good chance for a permanent fistula. About ten years ago he first carried this procedure into effect and met with considerable success.

To demonstrate the existence of a block 1 cc. of phenolsulphonphthalein is injected into the spinal canal in the lumbar region. Twenty minutes later the lateral ventricle is tapped. If the dye is present in the fluid from the lateral ventricle there is no obstruction of the ventricular system and the case is not suitable for the operation under consideration. In the event no dye is obtained from the ventricle a block is thereby demonstrated. Since the arachnoid absorbs the spinal fluid the phenolsulphonphthalein will be absorbed by it and excreted by the kidney. Dandy showed that the arachnoid of the spinal cord is capable of putting out only ten per cent of the phenolsulphonphthalein through the kidneys in two hours. In cases where the arachnoid over the brain is present and capable of functioning the phenolsulphonphthalein output will approximate forty per cent in the two hour period.

To summarize:—if, after intra-spinal injection of the phenolsulphonphthalein, none of the dye is obtained from the ventricle and only a ten per cent output is shown from the kidney, we are dealing with a block of the ventricular system and an absence of the arachnoid and there is no operative procedure worth while. If, however, no dye is obtained from the ventricle and the two hour phenolsulphonphthalein output approximates forty per cent there is not only a block present, but the arachnoid is present also, and is functioning, and a third-ventriculostomy offers considerable hope.

A few weeks ago a four months old hydrocephalic infant was seen. At birth a version and extraction had been done. The head showed no abnormality at the time. The child progressed normally until about the second month when the mother noticed its head had enlarged somewhat. The enlargement of the head continued until the baby was four months

old when they consulted the family physician, Doctor Z. T. Pinner, through whose kindness I had the opportunity of observing the case. On physical examination the child seemed to be entirely normal except for a tremendous enlargement of its head. Posteriorly below the level of theinion there seemed to be comparatively little enlargement. The parietal and frontal bones were widely separated, the fontanelle extending from the middle of the forehead to the occiput and from one temple area to the other. The fontanelle was extremely tense and definitely bulged. The pressure on the roof of the orbit resulted in the lower lids covering approximately half of the pupils of the eyes. The eye grounds showed a typical choked disc of rather marked degree.

A lumbar puncture was done and, following the removal of 1 cc. of spinal fluid, 1 cc. of phenolsulphonphthalein was injected. Twenty minutes later a tap of the left ventricle failed to show any dye in the fluid obtained. During the two hours subsequent to the injection of the phenolsulphonphthalein the urinary output was extremely small and only a twelve to fifteen per cent phenolsulphonphthalein return was obtained. Subsequently this was repeated and while the urinary output was again small, there was a return of thirty per cent of the phenolsulphonphthalein in two hours.

The head was put in a plaster cast and, through a curved left temporal incision, the brain was exposed. The left lateral ventricle was tapped and partially emptied. The temporal lobe was then lifted up and the bulging arachnoid at the base was torn. The wall of the lateral ventricle was then quite prominent. It was widely incised just posterior and lateral to the hypophyseal stalk. The carotid artery and the third nerve were prominently seen and aided in the identification of the structures. The cavity was then filled with normal salt solution, the dura and temporal bone sutured, and the galea and skin closed. The baby's general condition was fair.

For about a week after operation the child's temperature ranged from around 101 F. to 105 F., but it was conscious and took its feedings well. Following this the temperature gradually returned to normal. There was a slight skin infection in the wound which cleaned up

quite readily. Due to the weight of the head there was a tendency for bed sores to develop, but this was controlled by cotton padding and rings.

Three days after operation the cast was removed from the head. The eyes had definitely resumed a more normal position in relation to the lower lids. The fontanelle was found to be quite soft and, of course, fluctuant and the circumference of the head, which had not been measured prior to operation, was twenty-one inches. Five days later the circumference of the head was only twenty inches and the parietal and occipital bones were tending to ridge in both temporal areas.

On dismissal from the hospital, two weeks after operation, the fontanelles were soft and fluctuant and the circumference of the head was a shade under twenty inches. The patient has been seen once since leaving the hospital. He has continued to improve, the fontanelle remaining soft and the circumference of the head, six weeks after operation, was nineteen inches.

The object of this paper is to call the attention of the profession of this state to the fact that all cases of hydrocephalus in children are not hopeless. If these children are seen early and carefully worked out, the majority of them offer a reasonable chance of being made into normal useful citizens instead of being doomed to idiocy and a state of care, if life is not cut short by an intercurrent infection.

This is true in spite of the fact that every step in the necessary procedure is fraught with considerable danger, for even lumbar puncture in the presence of an excessive intra-cranial pressure, is not a safe procedure. The gravity of the condition, however, and the possibility of a successful result more than warrant the assumption of the risk.

DISCUSSION

Dr. Izard Josey, Columbia:

I think this paper which Dr. Doughty has presented is probably one of the most interesting, if not the most interesting papers presented at this meeting,

By the use of this operation, which has been perfected by Dr. Dandy, we can offer, in a carefully selected group of hydrocephalus cases in infants, opportunity for a useful life, rather than being doomed to idiocy and death. I think Dr.

Doughty it to be complimented upon the courage he has shown in going into this.

The whole working out of the case offers a considerable amount of difficulty and danger. As Dr. Doughty said, even the introduction of a needle into the lumbar space and withdrawal of a small amount of fluid in a hydrocephalic infant is fraught with danger. The whole situation, from beginning to end, is one that requires careful observation and a considerable degree of surgical skill at the operation itself. I want to compliment Dr. Doughty upon his success in this case and should like to reiterate what I said about the hope of giving these hydrocephalic infants, after careful observation and working out with the phenolsulphonphthalein test, opportunity to become normal individuals.

Question by a Member

I should like to ask Dr. Doughty especially about the post-operative care, and, having worked under Dr. Temple Fay in dehydrating brain-tumor cases, I want to ask this question: Would not the process of dehydration, which we think our head-injury cases and brain-tumor cases demand, play a very important part in the after care of these infants, or can it be neglected?

I should also like him to explain the mode of technic of the operation.

Dr. Doughty, Closing the Discussion:

In answer to the doctor's question about the dehydration, I do not see any reason, with so much fluid in the brain and the cavity in the head left full of salt solution, in order to insure the arachnoid floating away from the brain itself, why we should have any great trouble with acute dehydration of the brain. Now, if you attempt to dehydrate the brain of a hydrocephalic infant there is danger from movement of the brain. That is why you have to put a cast on the head before you operate, to prevent movement of the brain. The head is heavy; if you open it, and it collapses, and there is violent movement of the brain, then you will get tearing of the veins and do great damage.

The technic of the operative procedure is a standard one which I think is best shown in Lewis's text book on surgery and Dr. Dandy's articles on it. This is the temporal lobe here (drawing on blackboard), against the floor of the third ventricle. We wipe out the temporal lobe. Looking at the floor of the third ventricle, the arachnoid drops away to form a cisterna there. The sella turcica is here. The wall of the third ventricle is very thin at that point. This is the corpus callosum here. This space here prevents, to some extent, the adhesion of the arachnoid to the floor of the third ventricle. As to the technic of operation, you put the cast on to keep the head from collapsing. Preferably, go in the right side of the head, in the temporal area, with a curved

incision down through the temporal bone to the base of the skull. With a trocar needle or large cannula, put into the wall of the lateral ventricle, allow the fluid to escape from that area. This collapses the temporal lobe. Lift that up with retractors (cotton-packed retractors), and you will come then to the arachnoid at the base of the brain. That is ruptured, and the fluid escapes. You have to get the fluid out of the way, so you can see. Through that opening in the arachnoid (which is less than tissue-paper thick), you will see bulging behind the carotid artery and the third nerve, just behind the hypophyseal stalk this second thin, membrane-looking thing which comes up into the wound. That is the floor of the third ventricle. Take out a piece of it, or make a wide incision in it with an alligator forceps or an alligator pair of scissors.

THE MODERN OPEN METHOD OF TREATING CERTAIN FRACTURES

*Julius H. Taylor, M. D., F. A. C. S.
Columbia, S. C.*

No part of general surgery is today receiving greater attention than fracture surgery, an important subdivision of traumatic surgery. As a result of this thought, has come about the remarkable achievements in the treatment of certain fractures by the open method. Lane, in 1894, sponsored metal plating, ushering in a new epoch and bringing broken bones into the operative field; and thus attracting a group of surgeons, until then, mainly concerned with other fields of surgery.

It was not until 1909 that there was promulgated the possibilities, under aseptic conditions, of laying the tissues open for the proper and accurate treatment in certain cases; and but recently has the technique of bone surgery been mastered sufficiently to make it the method of choice in a goodly number.

That bone is a delicate tissue, and that it demands and requires consideration because of its peculiar qualities, is a recent thought. That it must be gently handled in manipulation and at operation is coming to be appreciated. Furthermore, the man undertaking to do this open operative work must be properly equipped. First, he must be an accomplished surgeon with

a well equipped hospital in which to work. He must have at hand all of the special instruments for fracture work, including a specially designed table such as the Hawley or Albee, whereon he may secure traction in any position and facilities for the application of plaster of Paris. Furthermore, he must be thoroughly versed in the application of plaster of Paris and have an assistant equally proficient. A properly applied plaster, one giving as little discomfort as possible is a matter of tremendous moment to the patient.

As has been said, by no means are all fractures to be operated on, though there are certain ones that experience has shown the open operation to be the method of choice. The open operation is fully warranted and should be unhesitatingly undertaken where the reduction of the fracture and the retention of the bones in fair position by simpler means are impossible or rendered inadvisable on account of resulting damage to neighboring structures. The time for operation is as soon as the case can be given proper preparation and the patient's condition permits of surgical interference. Furthermore, a good internist in association with the case is a splendid assurance against undue haste and a mighty comfort in case of subsequent complications of a medical nature.

The fractures looked upon at the present time as subject for the routine operative treatment are:

1. Patella with separation.
2. Olecranon.
3. Surgical neck of humerus with luxation.
4. Hip with dislocation at the joint.
5. Dislocation of carpal semilunar with or without scaphoid fracture, unless reducible.
6. Splintered fracture of radial head.
7. Separation of upper epiphysis of the humerus with displacement.

Fractures commonly operated on in addition to the above are:

1. Fracture of femur not reducible with tongs traction in ten days.
2. Low fractures of the humeral shaft.
3. Fractures of both bones of the forearm.
4. Fractures of lower leg when not reducible or with recurring displacement.
5. In my work, fractures of the shaft of the

*Read by title before the South Carolina Medical Association, Spartanburg, S. C., April 20, 1933.

femur in individuals between the ages of 15 and 50 if in vigorous health.

The special objects accomplished by the open operation in those cases where it is indicated are:

1. The ends of the bones may be approximated accurately and fixed in that position by any means chosen.

2. Ankylosis is avoided frequently in fractures near and involving the joint.

3. Tissue intervening between the fragments can be removed.

4. Injury done to the neighboring structures, such as nerves, and vessels may be repaired and loose spicules of bone removed.

5. The amount of callus is generally lessened.

6. Deformity is less frequent.

7. Shortening is often prevented.

8. The period of disability can be frequently lessened materially.

The preparation for operation on bone cases is more prolonged and detailed than for that of the usual hospital case. The method designed by Dr. Frederick Cotton of Boston is perhaps the simplest and as effective as any. The entire limb is first shaved and then thoroughly scrubbed with green soap and hot water. It is then encased in alcohol soaked gauze and wrapped in sterile towels. The same routine is repeated the second day and again on the third day, and on the fourth day, the operation is done. The utmost care is, of course, taken to assure that no slip of technic occurs in this procedure. As is well known, the resistance of bone tissue to infection is not that of tissues more abundantly supplied with blood and the presence of infection means failure always in cases where a bone graft is used.

Materials commonly used for the fixation and approximation of the fragments are:

1. The metal plate and screws.
2. Autogenous bone graft.
3. Silver wire.

In the case of the metal plate, it should be removed when it has served its purpose. The silver wire, however, may be left in place if desired as it is well tolerated by the tissues.

In fractures of the femur the ends of the bones must be brought into accurate apposition and the axis of the femur into correct weight

bearing line for the individual. Correct anatomical replacement is seldom obtained by the closed method. It must be remembered that the femur is not a straight bone. It has a curve peculiar to the given individual, and to obtain a satisfactory final result, the curve peculiar to that individual must be restored.

The greatest number of cases of femur fractures occur in that group with the most powerful muscles and in the most active period of industrial life with greatest need for full earning capacity. Hertzrots reported that in 96 cases of fracture of the femur treated by skeletal traction in New York City reviewed by him to establish the amount of disability, only four had completely satisfactory results, while the remainder had to be given industrial ratings from sixty to one hundred percent disability of the legs; and in one case with a fracture of both legs, a total bodily disability had to be allowed because of the result. The disability may involve the knee, the thigh muscles and the feet with limp due to shortening and secondary changes in the joints due to faulty posture.

While this tragic group of cases represents no doubt, the work of more than one surgeon, still it certainly represents what is to be expected in the hands of *half-baked* surgeons or of those not properly equipped for this branch of the art.

To the surgeon who has any doubts about the matter, the only admonition which can be given is—"Do not use the open method of handling fractures. Use any other method because safety first is better than subsequent regret."

LUDWIG'S ANGINA, WITH REPORT OF CASES

*David St. Pierre Asbill, M. D., F. A. C. S.
Columbia, S. C.*

Ludwig's Angina¹ is an acute, septic, inflammatory process involving the cellular tissues of the floor of the mouth, the submental and maxillary regions, and at times spreading down to and into the chest.

The infection generally originates in the gingival borders around ulcers, abscessed teeth,

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impacted necrotic molars with necrosis of the mandible, and after the extraction of teeth. The tonsils and other foci may also be the portals of entry for causative bacteria. The most common infecting agent is the streptococcus in pure culture, though other organisms may be found. The youngest patient that I have seen with Ludwig's angina was five years of age; the oldest, sixty-five.

The pathology is that of a cellulitis. Necrosis and pus formation always occur. The cause of death is said to be, in most instances, edema of the glottis or broncho-pneumonia.²

The symptoms at the onset are malaise, a sense of fullness in the throat, difficulty in talking and swallowing, salivation, and pain in the floor of the mouth. A chill, or chilly sensation only, may occur. The floor of the mouth becomes red, edematous, elevated, and of board-like hardness. If the patient tries to eat, food collects and putrifies in the mouth, often causing a foul breath. The patient soon becomes unable either to eat or to drink, for which reasons he becomes weak, dehydrated, acidotic, and loses weight rapidly. A painful swelling appears in the submaxillary region on one or both sides and in the submental region. The swelling has a tendency to spread downward, and is usually of board-like hardness. The over lying skin may be pale or dusky red and may or may not be glistening. There may or may not be pain or pressure, though tenderness was present in all the patients to be described in this paper. The temperature is not generally high, ranging between 99 and 103F., in most instances. Dyspnea may necessitate tracheotomy. A moderate leucocytosis is usually present. The patient's neck is usually stiff early, and, as the disease progresses, rotating the head and bending the neck become so painful that almost complete immobility of these parts results.

The diagnosis³ depends upon the finding of such pathognomonic symptoms of a cellulitis under the tongue as redness, edema, elevation, and brawny induration of the floor of the mouth with consequent elevation of the tongue, which it is impossible to depress by ordinary means.

In the differential diagnosis peritonsillar abscess and retropharyngeal abscess must be con-

sidered. In this connection it is interesting to note that four of the six patients herein considered had been previously diagnosed elsewhere as having "Septic sore throat."

The prognosis is grave, the mortality being placed by two nationally and internationally known authorities at fifty (50) percent.⁴

The treatment may be divided into local and general measures.

Early local treatment is vital⁵ and consists in immediate incision and adequate drainage through the most prominent area of swelling under the lower jaw, observing the usual rules of aseptic technique and using local anesthesia. In particularly severe infections the wound should be continuously irrigated with warm Dakin's solution, until there is no more pus. I prefer the submental incision to the intraoral.

The general treatment consists of rest in bed, fresh air, forcing sufficient fluid by rectum and intravenously, maintenance of nutrition by nasal tube feeding, if necessary, until the patient can swallow, relief of pain, insuring proper elimination by giving physiologically normal saline or tap water enemas when indicated, the prevention of acidosis by the intravenous injection in appropriate quantities of five (5) per cent glucose solution with one unit of insulin per three grammes of glucose, and by using such other general and supportive measures as may be deemed advisable. It is important to find and eliminate the portal through which the infection entered as soon as conditions permit. An easily digested and nutritious diet should be ordered when the patient can eat. Blood transfusions are beneficial when given early. Complications must be watched for and treated promptly if they arise.

Report of Cases

Case I. A five-year-old girl, referred by Dr. P., was brought in June 28, 1930, with all the typical signs and symptoms of Ludwig's angina, and was treated accordingly to the above outlined principles. The patient remained in the hospital three days after which she returned to her home where the incision was dressed and her general condition attended to by her family doctor. She made an early and complete recovery.

Case II. A 20-year-old white man, referred by Dr. E., presented himself October 29, 1930,



Case Ia—Note elevated tongue and tense, glistening skin over swelling posterior to tip of chin. The patient is attempting to withdraw her tongue and close her mouth.

Case Ib—Front view of same patient. The tongue cannot be depressed. The sub-mental and sub-maxillary swelling is of board-like hardness.

Case II—Appearance of neck on twelfth postoperative day.

Case III—Drainage tube in place on seventh postoperative day.

Case IV—Rubber dam and heavy tube in place on third postoperative day.

Case V—Appearance of wound on twentieth postoperative day, and prior to plastic operation required in this case only.

with typical signs, symptoms and laboratory findings of Ludwig's angina. The interesting feature about this case is that he referred his trouble to the fact that four weeks before he got some rye beards stuck in the tissues under his tongue. He and his father further stated that he had no trouble until a week ago when the floor of his mouth became sore and two pieces of rye beard worked themselves into his mouth coming from a sore place under his tongue. Be this story true or not, he had several carious lower molars.

Under the treatment described he made a good recovery and was discharged in four days to be cared for by his family doctor.

Case III. A 34-year-old white man, un-referred, came in June 1, 1930, with typical findings of Ludwig's angina. This case was treated in the same manner as the preceding cases and left the hospital on the 5th day, to return for daily dressings. The incision healed readily and the patient was able to resume his usual occupation in about three weeks.

Case IV. A 65-year-old colored man, un-referred, came in August 11, 1930, with classical symptoms of Ludwig's angina, was treated according to the principles described and left the hospital in two days. He returned for dressings and made a rapid, uneventful recovery, returning to work on the 14th post-operative day.

Case V. A 23-year-old white man, referred by Dr. T., arrived at hospital September 3, 1930. He gave a history of sore throat of 5-days duration. This case presented the usual clinical findings, but with unusual severity. His condition was complicated by the presence of acute nephritis, acute purulent bronchitis, left lower-lobe lung abscess, left sided plastic pleurisy and acute tonsillitis. His neck was indurated from the point of his chin to the sternum and some swelling and redness extended down for six inches over the chest wall. An immense amount of pus was found at operation with large masses of necrotic tissue. The wound was left open in this case,

as in all the others, to favor drainage around the tubes. The anterior capsule of the thyroid gland sloughed off with much other detritus during the process of healing. It was necessary to employ Dakin's solution before the wound could be got rid of pus. Paracentesis of the left pleural cavity was done because empyema was suspected, but no pus was found. Postural drainage was used to facilitate the bringing up of as much as 3,000 c.c. daily of tenacious, mucopurulent, offensive sputum from the lung. The treatment otherwise consisted in making the patient as comfortable as possible, and proceeding according to the general principles outlined previously. At the end of three weeks there was no more sputum. The patient stayed in the hospital 22 days, altogether, when he was allowed to return home to regain his strength under the supervision of his family doctor. On the patient's return for observation two weeks later, there was no evidence of infiltration in the left lung.

Case VI. A 28-year-old white man referred by Dr. S., of Mooresville, N. C., came in and was treated in the same manner as already outlined. He made a good recovery and was discharged cured in two weeks.

Conclusions

1. The fact that all patients presented carious teeth or diseased tonsils emphasizes their etiological importance of these conditions and the lines along which prevention should be directed.

2. Early, adequate incision and drainage are of paramount importance in the treatment of Ludwig's Angina.

3. The local operative treatment should be supplemented by careful attention to the general requirements of the patient.

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MEETING OF YORK COUNTY MEDICAL AUXILIARY

The Western York County Medical Auxiliary held its February meeting in Sharon with Mrs. J. H. Saye as its gracious hostess. The president Mrs. C. O. Burruss presided, opening the meeting with roll call and minutes. Officers elected for the coming year were as follows: President, Mrs. J. D. McDowell; Vice-President, Mrs. W. C. Whitesides; Secretary and Treasurer, Mrs. W. Burns Jones. Mrs. John I. Barron and Mrs. W. C. Whitesides were chosen as delegates to the State Convention in Charleston. After tendering a rising vote of thanks to the outgoing officers, Mrs. C. O. Burruss and Mrs. J. N. Saye, the auxiliary adjourned to hold its next meeting with Mrs. J. D. McDowell. A social hour followed during which the hostess served delicious refreshments.

E. A. J.

TUBERCULOSIS ABSTRACTS

A Review for Physicians

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No. 3

Tuberculosis can be like an iceberg, says David A. Stewart, "only one-tenth visible and nine-tenths submerged." A recent study of 2000 apparently healthy food-handlers in New York City calls attention to the presence of unsuspected cases and to the danger of this silent menace to others. Abstracts of the report of this study follow.

TUBERCULOSIS AMONG FOOD-HANDLERS

In 1915 the Department of Health in New York City introduced a plan requiring food-handlers to obtain a certificate showing that they were free from infectious diseases in a communicable form. Physical examinations were limited at first to food-handlers in hotels, restaurants and other food-handling establishments, and later extended to include those who handled foods in hospitals, foundling asylums and similar institutions.

Survey of 2000 Food-Handlers

Feeling that the method followed in examining food-handlers was open to question a survey was begun in 1932 of 1,000 apparently healthy food-handlers. Subsequently another group of 1,000 was similarly studied. These surveys had two objectives in view, namely:

1. To determine the incidence, extent and character of pulmonary-tuberculosis lesions in an average group of apparently healthy food-handlers.

2. To determine, if possible, what would be an effective way, in a community like New York City, to screen out those cases of tuberculosis in food-handlers which might prove important sources of infection with tubercle bacilli.

The method adopted after some experimentation was to make:

1. A routine roentgenogram of the chest.
2. An examination of the sputum.
3. A physical examination of the chest of those in whom a pulmonary lesion was demonstrated by the X-ray.

Of the first group of 1,000 examined, 772 were men and 228 women. The total number diagnosed as tuberculous was 125 (12.5 per cent). Of the second group of 1,000 a total of 112 cases of tuberculosis were discovered. The cases discovered in the two groups were classified as follows:

	1st group	2nd group
Healed childhood tuberculosis	73 cases	83 cases
Latent adult tuberculosis	16 cases	19 cases
Active pulmonary tuberculosis	36 cases	10 cases

While the proportion of women in the second group was larger than that of the first group the average incidence of lesions discovered did not vary much in the two groups. An important difference, however, appears in the active tuberculosis group, namely, 3.6 per cent for the first group and 1.0 per cent for the second. This conforms with the observation that pulmonary lesions are more common in adult males than in adult females.

Conclusions

The authors conclude, that the average incidence of active pulmonary tuberculosis lesions of food-handlers in New York City is approximately 2 per cent and they believe that this represents the average situation in all large urban communities. In New York City, with a food-handling population of more than 325,000, this percentage represents the existence of not less than 6,500 cases of unknown and therefore uncontrolled active pulmonary tuberculosis, to say nothing of thousands of cases of arrested tuberculosis, childhood type tuberculosis and pleurisy. Other conclusions are that when the question of tuberculosis is involved no physical examination of the chest is worth its name without the X-ray, and that progressive pulmonary tuberculosis may exist without demonstrable diagnosis signs.

A Tuberculosis Survey Among 2,000 Food-Handlers in New York City, Martin, Pessar and Goldberg, Am. Rev. of Tuberc., Feb., 1934.

SURGERY

Wm. H. Prioleau, M.D., F.A.C.S., Charleston, S. C.

"THE ASEPTIC TANNIC ACID TREATMENT OF DIFFUSE SUPERFICIAL BURNS"

In the local treatment of diffuse burns there is the ever present problem of infection both as regards its systemic effect at times causing death, and its interference with epithelialization favoring the formation of scars and contractures. While the introduction of tannic acid has done much to solve this, it has not completely done so, at least as it is generally used. While it is true that the burning itself effects a sterilization, the burned tissue soon comes in contact with contaminated objects, and as it is devitalized it becomes an easy prey to pathogenic organisms. The usual precautions seem ineffectual in preventing this infection. With this idea in mind Dr. D. B. Wells has modified the tannic acid treatment so as to practically assure a freedom from infection underneath the tanned membrane—(J. A. M. A. 101:1136. October 7, 1933.)

The usual method is to clean the burned area as well as possible and then apply a 4 per cent solution of tannic acid by compresses or spray until the surface is thoroughly tanned. During this procedure the patient is on a sterile sheet and under a canopy heated by electric light bulbs. This effectively prevents dehydration and heat loss, and gives the patient a tough painless covering to the burned area. So far so good, but after a few days there frequently develops evidence of infection underneath the eschar especially in the third degree areas. It becomes necessary to provide drainage by freely incising the coagulum or removing part of it. The systemic effect is a toxemia any time after the third day. If the infection is extensive enough there gradually develops a state of exhaustion which may result in death. Scars are increased from the delayed epithelialization. Contractures are more likely to form.

The method advocated by the author is to place the patient immediately into a large tub of

tannic acid solution, of no particular strength. While in the tub the clothes can be more easily removed. The solution softens the destroyed tissue. With thumb forceps and scissors the burned areas are thoroughly cleaned. The unburned skin is washed with soap and water as in an ordinary bath. As the solution in the tub becomes grossly fouled it is changed as quickly as possible. This cleansing frequently requires as long as three hours.

The immersion in the tub has a marked anodyne effect. The body heat is maintained. The burned areas tan rapidly. During the cleansing process the patient is given an abundance of fluids by mouth to prevent dehydration.

Dry Heat is the second distinctive step in the treatment. Upon removal from the tub there is already established a tan. This tan must be increased, newly formed blisters must be cleaned and tanned, and above all the patient must be kept absolutely dry, as maceration will favor bacterial invasion. The patient is placed on a dry sterile sheet. Instead of placing under a canopy with electric bulbs, which does not permit a change of air and causes perspiration, the body is exposed to a continuous current of warm air from a commercial hair-drying machine. This keeps the patient warm and dry. Small areas are sprayed with tannic acid solution and allowed to dry before further spraying. As new blisters form the dead skin is removed and the surface is tanned. After 72 hours there is formed a firm adherent eschar and no further tannic acid is required. The warm air current is continued to prevent heat loss and to keep the surface dry.

The result of this procedure is a firm aseptic eschar. It reduces to a minimum the danger of infection and thus greatly reduces the number of late deaths. It protects from infection any remaining epithelial islands in third degree burns and as a result generally does away with the necessity of skin grafting.

Editor's note: The above treatment is cer-

tainly founded upon sound surgical principles. It should be used where ever possible. The only possible disadvantage is the requirement

of so much skilled personal attention for the first 72 hours.

PUBLIC HEALTH

By B. F. WYMAN, M. D., Director of County Health Work, Columbia, S. C.

The State Board of Health is requesting an increased appropriation for the Department of Rural Sanitation and County Health Work. This letter is being written in the hopes that the explanation contained therein will interest you in this work.

For the past 17 years county health work has been carried on in South Carolina. In 1931 we operated in 24 counties through the State appropriation of \$46,900. There have been two special objections to the plan of procedure heretofore used: (1) We were providing an unequal sum of money as a subsidy for the different counties; (2) We were using State appropriation to assist approximately one-half of the counties in our State. Under the present plan we are requesting the sum of \$69,000. This sum is to be so divided that approximately \$1500 is to be given every county in the State. If the county is organized as a County Health Unit its share will be used to pay one-half of the health officer's salary and travel; if 2 counties are joined together in a Bi-county Health Unit, each county furnishing its own nurse, the share of these two counties, to wit: \$1500, will be sufficient to pay all of the salary and travel of the health officer. In counties where no funds are provided, one county's share will be added to the share of two or more adjacent counties so that the total sum of money thus derived will be sufficient to carry on a District Health Unit. The special features of this program which I wish to emphasize are as follows: (1) The division of the \$69,000—share and share alike to all counties in the State—the said moneys being used in accordance with plans herein mentioned; (2) The providing of a limited but very definite helpful health service to all of the counties of our State even though they do not contribute any funds; (3) The organizing of a competent well-trained

group of health workers throughout the rural sections of our State, giving close personal supervision of all cases of contagious diseases, sanitation, infant and maternal welfare work, and such other phases of work as may be helpful; (4) Special emphasis should be placed on the fact that these workers will be actual field workers, spending their entire time and attention among the people that actually need assistance; (5) In case of serious epidemics, disaster, or as may seem necessary, this entire group of personnel can be used in any part of the State.

I have been brief in this explanation, but the complete plan of this proposed health service will be discussed with you if the opportunity is afforded. This plan is sponsored by the Executive Committee of the State Board of Health through the State Health Officer.

Very truly yours,

Ben F. Wyman, M.D., Director.

The impression that practically all adults react to the tuberculin test is largely responsible for neglecting the use of this diagnostic aid. In the adult a positive reaction is of limited value but a negative reaction rules out the presence of tuberculosis and is therefore extremely valuable. M. R. Lichtenstein in the February American Review of Tuberculosis discusses the value of the negative tuberculin test in adults.

TUBERCULIN TEST IN ADULTS

A prevalent conception is that a negative intracutaneous tuberculin test may occur in the presence of active tuberculosis. This idea is erroneous, since it has been shown that all cases of pulmonary tuberculosis react if concentrations up to 1 to 10 are used. The only exceptions are moribund patients, and these, as a rule, present no problems of diagnosis.

Another conception is that practically all normal adults react positively. This, too, is fallacious for while the percentage of negative reactors probably varies widely with the geographic locality it is enough to make the test worth while, and the percentage is probably increasing.

Exclusion of Tuberculosis is Important

The exclusion of tuberculosis becomes important in the diagnosis of the case of suspected early pulmonary tuberculosis with negative sputum, dubious X-ray and inconstant or slight physical findings. When such a patient undergoes months of observation and is told finally that he is an arrested case it places upon him the stigma of tuberculosis and leaves him with a dread of breaking down. All patients coming to the Municipal Tuberculosis Sanitarium of Chicago as suspected cases and not proved to be tuberculous by the preliminary study were given a tuberculin test. The intracutaneous test was used; the quantity injected for each test was 0.05 cc.; readings were made at 48 hours; O. T. was used at first, and later T. P. T. (Seibert). Testing was begun with 1/100,000, 1/10,000 and 1/1000 dilutions. If negative, the 1/100, and, after intervals of 48 hours each, if negative, the 1/10 and 1/1 or full strength solutions were injected.

Of the 162 patients tested 14 (8.6 per cent) were completely insensitive to all tests and were ruled out at once as nontuberculous. Nine (5.6 per cent) reacted only to the stronger dilutions, but it is very probable from observation that they cannot have *active* tuberculosis.

Two main groups of patients present themselves as problems in diagnosis. First is the

group with symptoms suggestive of early tuberculosis, but with negative or dubious physical and X-ray findings. Second is the group with physical findings or X-ray shadows and with few or no symptoms. Most of the patients in our tuberculin-insensitive series who came under the first heading were finally diagnosed as showing various sequelae of acute pulmonary infection, or subacute infections of other organs. Under the second heading most of the cases turned out to be bronchiectasis or cardiac disease. One of the latter group was an asymptomatic unilateral apical bronchiectasis sent in with a diagnosis of tuberculosis because of the apical rales and X-ray shadow. Although many of the patients discussed here were suspected to be non-tuberculous on clinical grounds, the clinching argument in *proving* them non-tuberculous was the tuberculin test. Without the test a period of observation, probably of several months' duration, would have been necessary before the clinician could safely state that the patient had no tuberculosis.

Tuberculin Test Should be Routine

The test has value in private practice because it is helpful in those cases in which diagnosis is most difficult. Occasionally it solves quickly and decisively a problem in diagnosis which would never be solved otherwise. The intracutaneous test carried into the stronger concentration should be a part of the diagnostic routine of every physician who considers tuberculosis.

The Value of the Negative Intracutaneous Tuberculin (Mantoux) Test in Adults, M. R. Lichtenstein, Am. Rev. of Tuberc., Feb., 1934.

SOCIETY REPORTS

PROCEEDINGS OF THE REGULAR MEETING OF THE MEDICAL SOCIETY OF SOUTH CAROLINA, WHICH WAS HELD AT ROPER HOSPITAL, TUESDAY EVENING, FEBRUARY 13th, 1934, AT 8:30 O'CLOCK

The meeting was called to order by the Vice President, Dr. James J. Ravenel.

Present: Doctors: Beach; Boette; Bowers; Branford; Buist, A. J.; A. J. Buist, Jr.; Burn; Cain; Cannon; Cathcart; Chamberlain; Deas, de Saussure; Finger; Hope; Jenkins; McCrady; Mood; O'Driscoll; Pearlstine; Peeples; F. R. Price; Prioleau; J. J. Ravenel; W. J. Ravenel; Rhame; W. M. Rhett; W. P. Rhett; Richards; Rudisill; Rutledge; Sams; Sanders; Scott; W. A. Smith; W. H. Speissegger; Steinberg; Sughrue; Taft; E. W. Townsend; Waring; Whaley; I. R. Wilson; I. R. Wilson, Jr.; R. Wilson; R. Wilson, Jr.; Seigling. (47).

Guests: Captain E. N. Reed and Lieutenant W. S. Sargent, of the U. S. Navy; Dr. Overton, of the Mayo Clinic, and Dr. Lassek, of the Medical College.

The minutes of the meeting of January 23 were read and confirmed. Under Reports of Officers and Committees, the Secretary read the following letters from the Congressmen from South Carolina:

United States Senate
Washington, D. C.
February 1, 1934

Dr. W. Atmar Smith
Charleston, S. C.
Dear Dr. Smith:

Your letter with quotation from the action of your Body, received, for which I thank you. I shall give this my personal attention.

Sincerely yours,

E. D. Smith.

United States Senate
February 2, 1934

Dr. W. Atmar Smith, Secty.
Medical Society of South Carolina
Charleston, S. C.

Dear Dr. Smith:

I am in receipt of your letter of January 26th, setting forth the resolution adopted by the Medical Society of South Carolina relative to the Federal hospitalization of veterans. You doubtless have seen by the newspapers the provision in the Independent Offices Bill with reference to this matter. I do not see how this could adversely

effect the Medical Association inasmuch as it provides hospitalization for a World War Veteran in the event he can show that he is not able to pay for such hospitalization and treatment.

With best wishes, I am

Sincerely yours,

James P. Byrnes.

House of Representatives
Washington, D. C.
February 1, 1934.

Dr. W. Atmar Smith, Secretary
Medical Society of South Carolina
Charleston, S. C.

Dear Dr. Smith:

Your favor of January 26th has this morning been received.

I have carefully noted the protest of the Charleston County Medical Society at a recent meeting, relative to hospitalization of veterans who have not established service connection disability. I wish to assure your society that when such legislation is brought before the House for passage, it will have my careful consideration.

Thanking you for your views in this matter, and with my kind regards and good wishes. I am, as ever

Yours very sincerely,

Thos. S. McMillan, M.C.

These letters were received as information.

The Secretary read a letter from Miss Floride Bissell, Director of the Bureau of Social Welfare, in regard to the abandonment of the Health Center clinics for free toxoid inoculations for the city poor. On motion, this was referred to the committee on the Anti-Diphtheria Campaign.

Under Miscellaneous Business, Dr. Robert Wilson, Chairman of the Committee on the Costs of Medical Care, stated that it had come to his attention that a number of the younger men had been studying the matter of medical economics and that he thought it would be a good idea for the present committee, made up of himself and Doctors Cathcart, A. J. Buist, Lynch and the President, ex officio, be discharged, and another committee composed of the younger men appointed, as he felt that they had already made considerable progress in their investigations. It was moved, therefore, that the members of the present committee be discharged and the following appointed: Doctors A. E. Baker, Jr., A. J. Buist, Jr., H. Rudisill, Jr., J. I. Waring, I. R. Wilson, Jr., and R. Wilson, Jr. The motion was seconded and carried.

Dr. Cathcart presented Captain E. N. Reed of

the U. S. Navy Yard, and the Chair presented Dr. Overton, of the Mayo Clinic. On motion, the privileges of the floor were extended to these guests.

At 9:00 P. M. the Scientific Program was taken up.

Dr. T. E. Bowers read a paper on "Obstructions of the Colon," which was discussed by Dr. Rudisill, who exhibited x-ray films, Drs. Taft, R. Wilson, Prioleau, Dr. Bowers closing.

Dr. W. J. Ravenel read a paper on "Infections of the Distal Phalanges."

Dr. John Siegling read a paper on "Ingrowing Toenails."

Dr. I. R. Wilson, Jr., read a paper on "Treatment of Leg Ulcers." These papers were presented as a surgical symposium, and the discussion reserved until their completion.

Dr. F. R. Price read a paper on "Abdominal Pain and Rigidity," which was discussed by Drs. Buist and Prioleau, Dr. Price closing.

There being no further business, the meeting adjourned.

W. A. Smith, Secretary.

PROCEEDINGS OF THE REGULAR MEETING OF THE MEDICAL SOCIETY OF SOUTH CAROLINA, WHICH WAS HELD AT ROPER HOSPITAL TUESDAY EVENING, FEBRUARY 27th, 1934, AT 8:30 O'CLOCK

The meeting was called to order by the President, Dr. Francis B. Johnson.

Present: Doctors: A. E. Baker, Jr.; Beach; Beckman; Boette; Bowers; Branford; A. J. Buist; A. J. Buist, Jr.; Burn; Cannon; Chamberlain; de Saussure; Hope; Jenkins; F. B. Johnson; Maguire; Martin; O'Driscoll; Pearlstine; Peeples; F. R. Price; Prioleau; W. M. Rhett; Richards; Rudisill; Rutledge; Sams; Scott; W. A. Smith; W. H. Speissegger; Steinberg; Sughrue; E. W. Townsend; J. F. Townsend; Waring; Whaley; I. R. Wilson; I. R. Wilson, Jr.; R. Wilson; R. Wilson, Jr.; Siegling. (41).

Guests: Dr. Thomas P. Sprunt, of Baltimore, Dr. Hugh Smith of Greenville; Captain Stupes, Captain Reed and Lieutenant Sargent of the U. S. Navy Yard.

The minutes of the meeting of February 13th were read and confirmed.

Dr. W. C. O'Driscoll, Librarian, reported that the Library Committee and the Special Committee had had a joint meeting and were making arrangements with the Medical College to turn over some of the books for safe-keeping, and they were trying to work out some practical scheme for cleaning the books, as many of those in this library were infested with bookworms. This report was received as information.

Dr. D. L. Maguire, Chairman of the Committee on Arrangements for the State Medical Association, made the following report:

The Committee on Arrangements for the State Medical Association has had several meetings, and has made plans about as follows:

The Francis Marion Hotel has been selected as headquarters.

The meetings are to be held in the ballroom of the hotel beginning Tuesday evening, May 1st, when the House of Delegates will meet. The Scientific Sessions will meet there on Wednesday and Thursday and the ballroom has also been engaged for Wednesday evening, when a ball will be given for the President of the State Association.

The Women's Auxiliary to the Association is cooperating, and making plans to entertain the visiting ladies. They have tentatively arranged a schedule about as follows:

The Annual Meeting of the Women's Auxiliary will be held at the St. Michael's Parish House on the morning of the second. A lunch will be given at Brewton Inn about midday and a motorcade will be arranged for sight-seeing in the afternoon. They will then be invited to attend the President's Ball on Wednesday evening.

Respectfully submitted,
Daniel L. Maguire, Chairman
Committee on Arrangements for
the meeting of the State Ass'n.

This report was received as information.

At the commencement of the Scientific Session, the President presented the following guests to the Society: Dr. Thomas P. Sprunt, of Baltimore, Dr. Hugh Smith, of Greenville, and Captains Stupes and Reed and Lieutenant Sargent of the U. S. Navy Yard.

Under Case Reports, Dr. W. A. Smith reported a case of pulmonary monoliasis, and also a case of syphilis of the lung. These reports were discussed by Doctors Rudisill, Pearlstine, and Waring, Dr. Smith closing.

Dr. J. E. Scott reported a case of trench mouth with lung involvement, which responded to treatment with neosarsphenamin.

Dr. Thomas P. Sprunt, of Baltimore, was then presented, and made a presentation of a case of Lipoid Granuloma, illustrating his lecture with lantern slides and x-ray films.

There being no further business, the meeting adjourned.

W. Atmar Smith, M. D.
Secretary.

RIDGE MEDICAL SOCIETY

The Ridge Medical Society met at seven o'clock with a fair attendance.

Drs. Timmerman exhibited a case of neuritis in a young man with exaggerated sexual manifestation which elicited much discussion.

Dr. W. W. King exhibited a young man who was accidentally shot with a shot gun and considerable

portions of the lower ends of the fibula and tibia torn away and though the wound has not yet entirely healed is able to perform his usual labor on the farm while wearing a special splint designed by Dr. King. Dr. King was highly commended for his excellent results and especially by those who saw the case with him.

Dr. Wise reported a case of neuritis with impotency as his chief complaint due to gossipers about his having had spinal anesthesia for an operation.

Dr. Wise also reported some cases of tularaemia

which he treated successfully with nearsiphennamine and thiobismotol, which was discussed by Drs. Waters and R. H. Timmerman.

Dr. Ballenger reported a case of dermatitis exfoliaton which terminated fatally also some others which recovered.

These reports elicited much discussion.

Dr. Ridgell, a dentist, one of our loyal members commended the society most highly for the good it is accomplishing.

Dr. Whittock of Aiken reported a case of a young man who was sick and in great pain for a

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few hours and who probably died with perforation of his stomach.

Dr. D. S. Asbill of Columbia read an interesting and instructive paper on Ludwig's Angina and exhibited pictures of several patients with it whom he treated successfully.

Drs. W. W. King and J. D. Waters were elected delegates to the State Medical Association.

The Ladies Auxiliary were delightfully entertained at Mrs. A. L. Ballenger's.

Dr. W. P. Timmerman attended the meeting of the Tenth District Medical Society of Georgia in Augusta last week.

W. P. Timmerman, Sec'y.

DRUG ADDICTS

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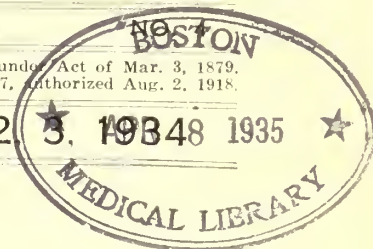


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REASONS WHY YOU SHOULD SPECIFY

continued from last month

"Deterioration of the livers, and hence of the technical quality of the oil, is due to retrogressive changes effected by the enzymes, etc., present within the liver tissue." "We recommend steaming fresh

4. How to Steam Livers to Express Medicinal Cod Liver Oil*

livers for an adequate period, preferably with high-pressure steam, as the most certain method of producing medicinal oil of high quality. The essential points are to operate under such conditions and for sufficient length of time to ensure that all enzymes contained in liver tissue left in suspension in the oil are completely destroyed, and to continue steaming not only until the maximum yield of oil has been reached but for a little longer in order to produce an oil of maximum vitamin content from a given set of livers. Owing to the higher temperature of steam at higher pressures, it is obvious that the latter, in addition to effecting more rapid separation of the oil, will be more efficient in suppressing enzyme activity."

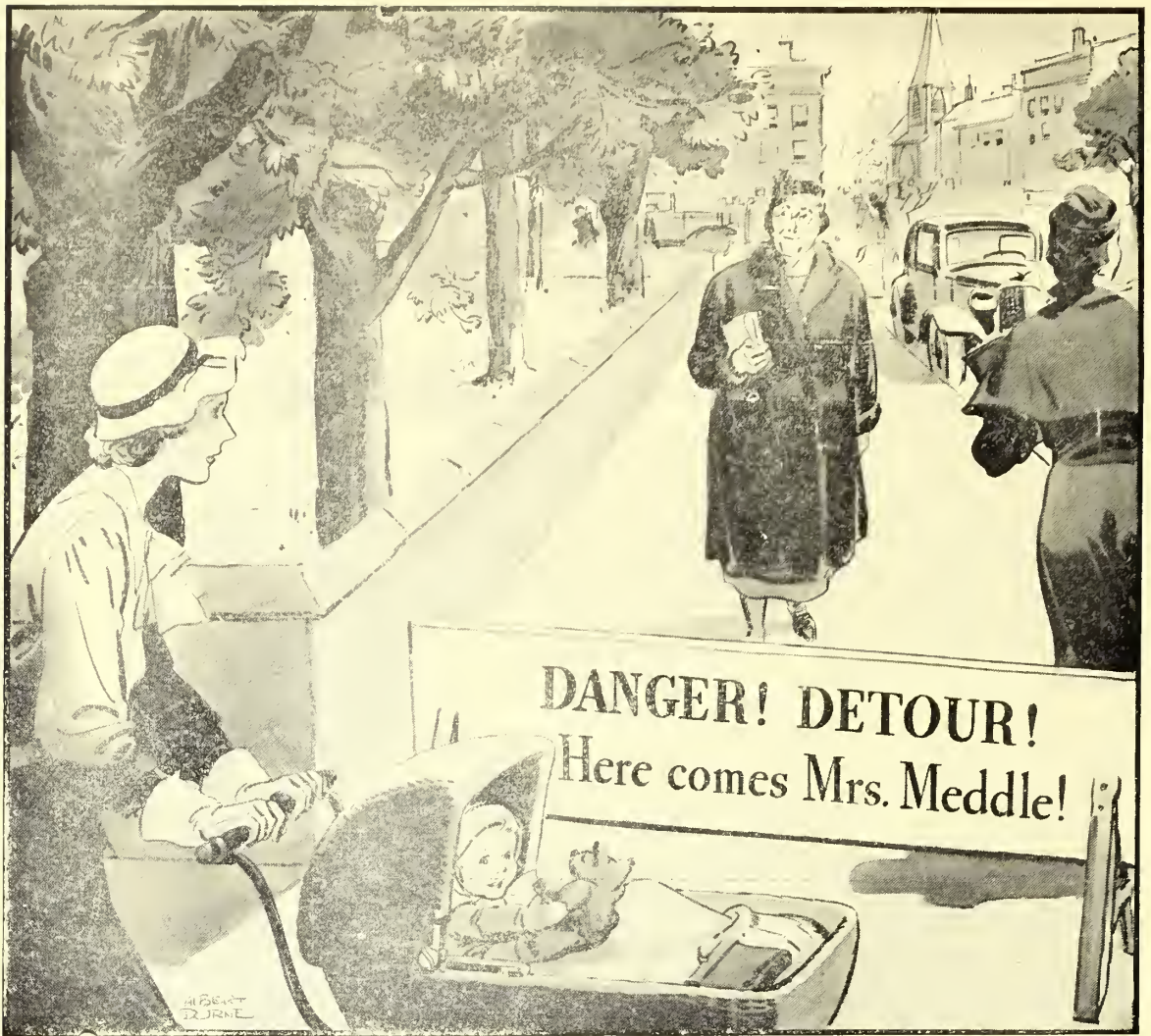
*J. C. Drummond and T. P. Hilditch: The Relative Values of Cod Liver Oils from Various Sources, His Majesty's Stationery Office, London, 1930.

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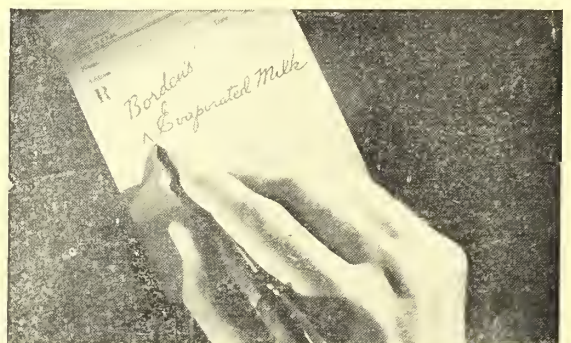
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THE JOURNAL

of the

South Carolina Medical Association

Published Monthly Under Direction of the Board of Councilors.—Annual Subscription, \$3.00.

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EDITORIAL

The Program, The Journal And The City

The Program

The program of the meeting of the State Association, May 1, 2, 3, has been mailed out to each member and to the public press. It speaks for itself as the culmination of arduous labors on the part of the Scientific Committee and the officers of the Association. Every effort has been made to provide a program that can be completed in the time allotted, namely; by midday on the last day of the annual session. It is believed that such a plan will be conducive to a more satisfactory meeting than has hitherto been the case with many more papers scheduled.

This Issue of the Journal

We bespeak the careful perusal of this number of the Journal by every member of the As-

sociation. We have endeavored to present an historical review of early medical history in South Carolina and an outline of developments up to the present day. To accomplish our purpose we were fortunate enough to enlist the cooperation of a number of loyal friends. In addition to such generous assistance we wish to acknowledge our indebtedness to the Charleston Chamber of Commerce, The News and Courier, and Coastal Topics.

We wish to call to the attention of our readers that every article in this issue of the Journal has been written specifically for this occasion. The Associate Staff has given us a wide range of scientific contributions well worthy of careful consideration by the practitioners of medicine all over South Carolina.

The Place We Meet

Someone has suggested that the history of civilization is the biography of the world's great men. Certainly it is true that history only has meaning when there is reflected in the thought,

vision and institutions of today the vitality and inspiration of the men of yesterday. There are few if any places in the United States where one is more likely to feel the heartbeats of yesterday within the pulse of today than in the historic city of Charleston. To join the throngs of impressed onlookers and dignified residents in the busy streets and shaded avenues of this city is to live again—even though it be on a miniature scale—a greater part of the actual historical progress of the entire country.

Founded as Charles Town in 1679 and incorporated officially as Charleston in 1783 this magnificent port of South Carolina came early to take its place on this side of the Atlantic as the guardian and nourisher of the most independent thought and genuine culture—a place which she has not forfeited even until the present day.

It would be interesting in the extreme if space and time permitted that we should tabulate and describe in some detail the points of note which distinguish Charleston not only as a city of historic importance but also as a city of modern scientific and artistic progress. However we may only mention the appeal of her world famous gardens, her valuable collections of precious portraits and documents, her impressive manufacturing plants and engineering achievements, and her shrines which have become modern Meccas for a constant stream of Americans who desire to have inspiring—if momentary—communion with the great souls of the past.

It is not expected that such an inadequate tabulation should be sufficient to satisfy the curiosity of a medical visitor to this city, rather is it hoped that these suggestions will excite within us all a determination not to leave this unique and fascinating city without having captured for ourselves the charm and beauty of some of her treasures.

The Call To Charleston

Welcome to the South Carolina Medical Association

The honor of having the invitation to the South Carolina Medical Association to meet in Charleston, May 1st., 2nd., and 3rd accepted,

was greatly appreciated by the members of the Medical Society of South Carolina (Charleston County).

We extend to you a cordial welcome to this city so full of historical medical interest. We are anticipating with pleasure a large attendance and can assure the members of our State Association that a warm hospitality awaits them.

Our local committee of arrangements has made preparations for your reception, comfort and entertainment which we hope will add to the enjoyment of your stay. Charleston has always drawn a large attendance for these meetings, and we trust that you will find that this one will measure up to the standards of those in the past.

We wish every member to feel it his privilege to call on our local committee of arrangements for anything he needs to make his visit here enjoyable in every way.

Francis B. Johnson, M.D.,

Pres. of the Medical Society of South Carolina.

The Story of Medical Journalism in South Carolina

This issue of the Journal is designed to be really and truly a Charleston Number, giving a brief resume of the medical background that has made the city justly famed as one of the important medical centers of the world.

In this brief history of medical journalism, beginning more than a hundred years ago in Charleston, we find a story of fine effort in the interest of science. Charleston Medical Register.

Edited by Dr. David Ramsay, v. 1, 1803. Charleston.

This was the only volume published.

Carolina Journal of Medicine, Science and Agriculture

Editors: Thomas Y. Simons and Wm. Michel.

Published Quarterly in Charleston by Gray & Ellis.

\$4.00 per year. Vol. 1 (1825).

New series Vol. 1 Nos. 1-2, March-May, 1826.

(Edited by T. Y. Simons). Dedicated to Dr. Benjamin B. Simons.

This, according to the Prospectus, is the first Journal of Science ever published in the State. The editors felt a need for such a publication in the State to draw forth the "energy, talents and resources" of the doctors in the State, inasmuch as such efforts had been successful in the North. One part devoted to original matter in each of the following: Medicine, Science and Agriculture,

and one part to extracts from foreign periodicals. Southern Journal of Medicine and Pharmacy.

Edited by J. Lawrence Smith and S. D. Sinkler (Bi-monthly).

Vol. 1-2, Jan., 1846 to Dec. 1847.

Charleston. Burges and James. \$4.00 per year.

Charleston Medical Journal and Review (continuation of Southern Journal of Medicine and Pharmacy.) \$4.00 per year. Editors P. C. Gaillard and H. W. DeSaussure (Bi-monthly).

Vol. 3, Jan. 1848 to Vol. 16, 1861. Charleston. Burges & James.

New series Vol. 1, April, 1873 to Vol. 4, Jan., 1877. (Quarterly). Editors F. Peyre Porcher and R. A. Kinloch, Charleston. News & Courier Job Presses.

"Re-establishment of Charleston Medical Journal To the Medical Profession," Charleston Medical Journal N. S. v. 1:1, 1873.

" . . . But it is not true that this journal is new or unheard of, for it has been long and widely known in the past—sixteen volumes having been completed when its publication was interrupted. We may be permitted to state on this occasion that one of us had been associated in its management during five years of laborious editorial care; a large edition (attested by the doubling of the subscription list) was issued before the conclusion of our connection with it, and the Journal was received in every State of the South and West. . . .

" . . . there was no journal in this section of our country the files of which have been and are at this moment more frequently searched and quoted from" . . .

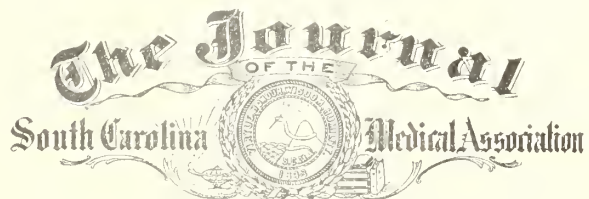
" . . . The Charleston Journal embodying papers on race, climate, natural productions, yellow and other fevers and diseases endemic here, it now contains, in common with others, the original observations and materials from which the medical history of the diseases of the South will be constructed."

In a long list of subscriptions acknowledged in one of the numbers of the Journal, the following states were represented: Texas, District of Columbia, Maine, Pennsylvania, Alabama, Virginia, Georgia, Tennessee, Louisiana, Kentucky, California, North Carolina, New York, South Carolina (14)

In 1909 4 numbers of the Aesculapian appeared by the students of the Medical College.

After 1877 there appears to have been no re-establishment of a medical Journal in this state until Dr. Walter P. Porcher, of Charleston, having been Secretary for fifteen years and feeling the need of an official organ, recommended in his Presidential address in 1900, at the golden anniversary meeting in Charleston, the establishment of a medical journal by the State Medical Association. This was a courageous stand to take, for the Association had only about 150 members with annual dues of three dollars

and no money to speak of in the treasury. The idea was not acted upon until Dr. Robert Wilson of Charleston became President of the Association, and in 1905 suggested that the Association immediately establish a State Medical Journal. Even at that time with the reorganization of all the medical societies in the United States by the American Medical Association in progress the proposition was hazardous. The Association had only \$262.22 in the Treasury and South Carolina would be one of the smallest states in the union to undertake a State Medical Journal. This fact did not deter the House of Delegates, so the Journal was established and Dr. Robert Wilson became the Editor in Chief. The first number came off the press in June, 1905. It is our privilege and pleasure to present a *fac simile* of the first



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South Carolina Medical Association

Next Annual Meeting at Columbia, S. C., April 20th, 1906

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Walker, Evans & Cowell Co. Print, Charleston, S. C.

cover page. The new journal met with financial difficulties from the start but the Council was not discouraged and many meetings were held to devise ways and means of keeping the journal alive. Brilliant editors were elected by the Council, among whom were Drs. Robert Wilson, F. H. McLeod, J. W. Jervy, and J. C. Sosnowski. They all served with marked distinction.

Finally, it became necessary to rearrange the plan for publication of the Journal and this was done under the Presidency of Dr. J. W. Jervey, who recommended in 1911 that the Secretary be made the Editor of the Journal.

The first editorial (the only one ever signed by the present Editor) on January 1st, 1912, we republish here.

A Change of Editors

The resignation of Dr. Sosnowski as editor of The Journal will doubtless be regretted by many of the members of the association who have enjoyed his editorials and admired his efforts to give us a first-class periodical, representative of the dignity and attainments of the profession in this State. His successor feels that this new honor comes somewhat in the guise of a promotion, for he was editor of the Department of Materia Medica and Therapeutics for the entire three years that department was maintained. At any rate, he does not approach this new phase of THE JOURNAL work with the "fear and trembling" a formal introduction might excite, but leaves the burden of that affliction upon the readers.

THE JOURNAL has had almost as many editors as it has had years of existence—five in less than seven years. The Council has in the past been peculiarly fortunate in securing men of marked ability in their profession to assume this duty. These men for much of the time have generously donated their services to the association—this fact being perhaps not generally known. Clearly there have been good reasons for this frequent change of editors. It is probable that the time required in looking after the details of financing and printing THE JOURNAL grows irksome to the very busy doctor who has had no training for, and who does not expect to pursue this line of endeavor particularly.

In view of the foregoing the council at a called meeting held in Columbia, November 2nd, accepted Dr. Sosnowski's resignation and elected the secretary of the association to be editor of THE JOURNAL, January 1, 1912. This plan has been adopted by many successful associations throughout the country. It is hoped this arrangement will be advantageous from at least a practical point of view.

It is, therefore, as a result of this idea that THE JOURNAL is somewhat changed in appearance, a matter of economy, and not from a desire to do something radical, because of a change of editors.

In the judgment of the writer, the organ of the association should be primarily the servant of the organization, and yet broad enough to scan and present before its readers the gist of progress throughout the world. Its columns will be open in the future as in the past to the various activities of the association which includes the Executive Committee of the State Board of Health, the State Board of Medical Examiners and numerous committees charged with the interest of the association.

Edgar A. Hines

The Journal of the South Carolina Medical Association begins its thirtieth year as a matter of fact on the 21st, of June, 1934. The story of its achievements is well known. It is not the handiwork of any one individual. While originally a Charleston idea, a multitude of friends have arisen all over the state and from beyond its borders to labor unselfishly for its welfare. We would call special attention to this splendid service without which the Journal could not have been sustained for nearly three decades, and bespeak for this publication their continued loyalty and support.

ORIGINAL ARTICLES

Cancer of the Colon and Rectum

By J. Shelton Horsley, M.D., Richmond, Va.

(From the Surgical Department of St. Elizabeth's Hospital, Richmond Virginia.)

The organs that are chiefly responsible for the greatly increased number of deaths from cancer are the stomach, large bowel and rectum. In 1932, in the Registration Area of the United States except Utah, there were 122,339 deaths from cancer. Of these, about one-half were due to cancer of the gastro-intestinal tract and peritoneum; and cancer of the intestines, including the small bowel in which cancer is rare, and the colon, rectum and anus, accounts for about 16,000 deaths annually.

The only satisfactory treatment for cancer of the stomach and bowel is surgical excision. Radiation, certainly in cancer of the stomach, does but little good except in occasional rare cases of lymphosarcoma. In cancer of the rectum, the implantation of radon seeds may be helpful, but in cancer of the colon higher up these are of but little avail. Usually these cancers are radio-resistant. The important thing, then, is to recognize the lesion early and to extirpate it surgically as soon as possible after the diagnosis is made.

It must be recalled that the function of the right and of the left half of the colon is distinctly different. In the cecum, ascending colon, and part of the transverse colon, the chief function is absorption of fluid, whereas in the left half of the colon the chief function is to act as a reservoir. In certain instances there may be compensating changes, but under normal conditions these two functions hold.

Cancer of the colon is much more amenable to treatment, so far as cure is concerned, than cancer of the stomach, because it usually metastasizes rather late and because a wide excision can often be done. In the right half of the colon the cancer usually is of the large, fungat-

ing type with necrotic tissue. There is often a slow bleeding and oozing, and this combination of conditions along with the sepsis and saprophytic bacteria inhabiting necrotic fungating tissue establishes an early anemia. Often the anemia is quite profound and simulates a pernicious anemia. In a patient in the "tropic of cancer", over 35 years of age, who has an anemia that cannot be explained, ulcer or polyp of the stomach or duodenum and cancer of the right colon should always be considered.

Naturally, when the growth is large enough to be palpated, it is fairly well advanced. Pain occurs when there is involvement of the adjacent peritoneum, but this does not necessarily mean that the growth has infiltrated the peritoneum. Usually the bacteria will cause congestion and local peritonitis which give the symptom of pain. If the growth is near the hepatic flexure, it will sometimes disappear when the patient lies down and can be brought out when the patient is standing or sitting, or on coughing or drawing a long breath.

Any irregularity in the normal habits of the bowel should always suggest some lesion in the large bowel. Occasionally there is a diarrhea and the passage of blood that may appear to be fresh, or old clotted blood, or pus and mucus may occur. This may be a symptom of cancer at any portion of the large bowel. In the left side of the large bowel there may be also a fungating mass, but more frequently the cancer is a slow scirrhous type of growth, the so-called "napkin-ring" type. The growth is usually not palpable and frequently the first symptom is obstruction. The obstruction may gradually increase and become complete. The symptoms of obstruction in cancer of the left colon usually do not present the acute type of ileus that occurs in the small bowel. There is distention and discomfort, and sometimes there is no vomiting until the obstruction has lasted for a good many days. Enemas do not bring relief, and purgatives accentuate the condition. I have seen a few cases of cancer of the left

colon, however, that are of the papillary type and form a soft, boggy, mass in the bowel. They do not cause obstruction, but produce bleeding and sometimes ulceration, and usually diarrhea. This type is not extremely malignant, but on account of the lack of obstruction and only occasional passage of blood and mucus the symptoms are often overlooked. There is in this type always some history of change of the habits of the bowels as an early sign. Any patient,—a man or woman, but particularly a man,—who has had regular bowel movements at a stated time every day, and finds that sometimes there is constipation and after this a spell of diarrhea, or an unaccountable diarrhea without constipation, or with occasional passage of blood, pus or mucus, should be regarded as suspicious of carcinoma of the colon.

Carcinoma of the rectum is easily diagnosed if it is looked for. Too often the practitioner assumes that the patient has hemorrhoids and lets it go at that, and local applications, suppositories or salves are applied. A thorough digital examination will discover cases of cancer of the rectum in probably 85 or 90 per cent of the cases. A proctoscopic examination should also be made, but a digital examination by all means should be made first. Many are the patients in whom a cancer of the rectum has gone on to a hopeless condition while being treated for hemorrhoids, when a simple digital examination would have uncovered the diagnosis and given a chance for cure. In making this examination, a rubber glove should be used instead of a finger-cot. With a finger-cot the examiner unconsciously protects the rest of his hand and the finger is not shoved up as far as it might be. With a rubber glove, however, the soiling of the hand is avoided and at least a half-inch of the rectum can be explored with the hand in a glove that would be inaccessible if there were only a finger-cot on the finger.

Any symptom, then, that may be suspicious of trouble with the colon or rectum, should always demand a careful and thorough digital examination of the rectum as the first step. X-ray examination is of great help in the diagnosis of the colon and upper sigmoid, but is not to be depended upon for the lower sigmoid and rectum. The large cavity of the rectum and the folding over of the lower portion of the

sigmoid, often prevents the demonstration of a filling defect. Besides that, in the rectum a lesion can be felt with the finger and inspected through the proctoscope in its early stages, before it can be demonstrated by x-ray examination. Naturally, when a lesion is sufficiently advanced to give a distinct filling defect anywhere in the colon, it is not a very early growth.

Polyps and ulcers are often precursors of cancer. In regions that we can inspect we find that cancer always starts on some previously benign lesion. In the large bowel it is often a polyp, either an adenoma or a papilloma, or it may be an ulcer, and there are some cases in which this change can be well demonstrated, there being around the cancer a few adenomas that may be entirely benign but show hyperplasia. The obvious inference is that one of these adenomas has become cancerous while the others have maintained their benign structure.

The x-ray examination of the colon should always consist of a barium enema, and never barium administered by mouth, because by this latter means of administration the hard barium masses may accumulate above the growth, especially if the cancer is on the left side, and precipitate an obstruction. A barium enema, being under pressure, can more accurately demonstrate a lesion than if the barium were administered by mouth.

A source of diagnostic confusion may be an amebic ulceration or infection with an *endameba histolytica*. Cases have been reported in which the amebic lesion is confined to the right side of the colon and in which there is no diarrhea nor passage of blood. As a rule, of course, there are diarrhea and discharge of pus and mucus. If this possibility of infection with *endameba histolytica* is borne in mind, the diagnosis can be made by a microscopic demonstration of the organism in the stool. Whenever there is the slightest doubt of this diagnosis, this examination of the stool should be done. Unfortunately, ever since the epidemic which started in one of the Chicago hotels last summer, there have been cases diagnosed as cancerous or surgical conditions and subjected to unnecessary operation, whereas with a proper diagnosis treatment with emetin would be all that is necessary.

When the diagnosis of cancer has been def-

initely determined, operation should be performed as soon as the patient can be made ready for it.

Within the last few months we have adopted a method of giving intra-peritoneally the vaccine of Steinberg one to three days before operation. This seems far more effective than any other vaccine, and undoubtedly reduces the mortality rate from peritonitis, which heretofore has been one of the outstanding causes of death. In one case particularly, in which a part of the bladder as well as the adjacent rectum and recto-sigmoid was involved and resected, and an abscess had formed around the tissues, much of the dissection was done with the cautery and there was every opportunity for peritonitis. The vaccine had been injected forty-eight hours before operation, and the patient made a smooth recovery from the immediate effects of the operation, whereas without the vaccine and with a similar operative technic the danger from sepsis and peritonitis would have been very great.

The operative indications for the right side of the colon are different from those on the left, partly because of the different functions as has already been stated. On the right side the feces are fluid and the excision should include at least a portion of the ileum. Here it is preferable to divide the ileum about six or twelve inches above its termination, clamp or infold the lower end, and make an end-to-side anastomosis of the oral end of the ileum to the transverse colon. If the patient's condition is good and the mesentery is long, the right half of the colon with the cecum and the stump of the ileum can then be excised. By making an anastomosis first, there is less chance of infecting the large raw surface that will result from mobilization and excision of the right half of the colon. If, however, the patient's condition is not good, and especially if the mesentery is short and there are adhesions, it will be best to make a second stage and excise the right colon a week or two later. This will give rest for the right half of the bowel, and the patient a chance to recover to some extent. No intestinal suturing will be necessary in the second stage except the closure of the colon on the oral side of the previous anastomosis between the ileum and the colon.

If the transverse colon or the left colon down to the rectum is involved, however, a different procedure should be adopted and preferably a three-stage operation should be done. In the first stage a muscle-splitting incision is made in the right iliac fossa, the cecum is brought up into the wound, and a glass rod is placed under the ascending colon just distal to the ileo-cecal junction. The bowel is packed around and a rubber catheter is inserted to let off the gas; after one or two days it is removed and an opening about one and a half inches long is made in the bowel, preferably to the cecal side. This type of colostomy will give complete rest to all the colon distal to the colostomy, and will permit the irrigation of the colon through the enterostomy and through the rectum so that by using salt solution the bowel can be made clean. The glass rod is sutured to the skin so that the pressure is constant and there can be no overflowing of fecal matter to the colon. If necessary, some vaseline gauze can be used to exert pressure for the first few days on the part of the colon under the glass rod, though after the swelling has subsided and the mucosa of the colostomy has become everted there is but little danger of fecal matter passing over it.

At the end of about two weeks, the extirpation of the cancer is done. If the patient is fat and the growth adherent, a Mikulicz type of anastomosis is best, separating the adhesions and the surrounding infiltration with the cautery, dividing and ligating the mesentery to the loop to be excised, and bringing the loop well onto the abdominal wall. The two limbs where the excision is to be done are clamped with forceps and sutured together for a distance of 1 or 2 inches, taking care that the apposed surfaces of the colon are opposite the mesentery so that the large vessels will not be caught. Two parallel rows of sutures are made. The bowel is then cut away with the electric cautery, leaving the clamps in position. If the growth is quite large and is adherent, as sometimes occurs in the transverse colon, drainage may be placed down to the stumps of the mesentery. The drainage is removed in two or three days, and the clamps are taken off after four or five days. Then a clamp is placed on the spur and left on for a few days. Usually this will establish an anastomosis and the surface will grad-

ually close over, but sometimes an additional plastic procedure may be necessary. If the growth is not large, however, it can be brought into the wound and excised, and an end-to-end union made. Two rows of sutures are placed, the outer row being interrupted, and left long, and adjacent omentum or peritoneal covered fat is brought around the anastomosis. The colostomy is closed about two weeks after the excision of the cancer, this making the third stage of the operation.

In cancer of the rectum almost always a radical operation should be done. I have attempted local operations, preserving the sphincter, but almost invariably there has been a recurrence, and there should be no compromise with a cancer. If continuous intravenous dextrose in Ringer's solution is started through a cannula at the beginning of the operation, and a donor is matched up for a transfusion of blood, usually the operation can be completed in one procedure. The abdomen is opened, the bowel divided, and the upper end brought through a short wound to the left of the abdominal incision in the position in which an artificial anus is intended to be established. The lower stump is closed with a suture. The dissection then begins in the midline, after dividing and ligating the inferior mesenteric artery, and is continued on each side, cutting the peritoneum around the bladder or uterus as the case may be. After the dissection has been carried well down into the pelvis and to the coccyx, the stump of the bowel is shoved into the pelvis, the peritoneum sutured over it, and the abdomen is closed. The patient is placed either in a lateral or a dorsal position. A purse-string suture of stout silk is inserted around the anus. An incision is made around the anus. The coccyx is identified and the tissues just in front of it are incised. The dissection is continued over the coccyx until the upper dissection is met. If the patient is a man, the dissection should be carried along the urethra as in a perineal prostatectomy until the prostate is reached. Then the levator ani muscle and the tissues on the left side are divided, and the whole mass is extirpated.

These procedures will cover practically the whole line of operations that are necessary to remove effectually a cancer of the colon or rec-

tum. Of course much depends upon the type of cancer, but as a rule cancer of the colon is not an extremely malignant grade and metastases are rather late. In some cases, however, it tends to metastasize more readily. Naturally, whenever the abdomen is opened and cancer is demonstrated, the liver should be palpated and a search should be made for metastases. If there is obstruction and also a metastasis in the liver, the excision may be justified in a three-stage method. Much depends upon the condition of the patient and the extent of the metastases.

If, then, an early search is made for this condition, and an early diagnosis made and a competent operation done, many of these patients who were formerly doomed to an inevitable and painful death can be cured. Two things are important to accomplish this much desired end. One is the watch for early symptoms, and early diagnosis; and the second is a competent and thorough operation, together with provisions for preventing shock and for minimizing the loss of blood.

The Significance of Hemoptysis

Porter P. Vinson, M.D.,

*Division of Medicine, The Mayo Clinic,
Rochester, Minnesota*

Hemoptysis is the most alarming evidence of pulmonary disease. This is true because of the suddenness of its appearance and the frequent association of bleeding from the mouth with serious organic lesions in vital organs. If hemorrhage from the respiratory tract has occurred previously there is very little question in the mind of the patient as to the origin of the bleeding when it recurs.

There may be some doubt as to the source of the bleeding when the amount of blood lost is small and when bleeding is experienced for the first time. There may be a question as to whether blood has been coughed up from the lungs or has been vomited, but if the amount of blood lost is large, and if it has come from the tracheo-bronchial tree, this uncertainty rarely exists. As a matter of fact, many patients can identify with considerable accuracy the part of the lung from which blood is being lost.

Bleeding from soft, infected gums rarely

should be confused with true hemoptysis, and when a patient asserts that blood has been expectorated in the morning, on arising, and that the expectorated material consisted of saliva stained with small amounts of blood, one should be very suspicious that the bleeding has come from an area of ulceration in the mouth.

Bleeding from the nose during sleep may be followed in the morning by expectoration of small, or even, of moderate, amounts of dark blood, but a carefully taken history, and examination of the nasal passages, should leave little or no doubt as to the origin of the hemorrhage. It is hardly necessary to suggest that an ulcerating lesion in the nasopharynx, oropharynx or hypopharynx may prove to be the source of bleeding from the mouth. Rupture of enlarged veins over the base of the tongue in the vicinity of the lingual tonsil is sometimes suspected as the cause of bleeding, and yet this must be an unusual factor in the production of hemorrhage. I never have observed an incident of this type to give rise to hemoptysis. In cases of suspected malingering, when bleeding from the mouth is presented as a symptom and not as a sign, one may remain in considerable doubt as to the source or certainty of hemorrhage.

Before the time when roentgenoscopy and bronchoscopy were employed in the diagnosis of pulmonary diseases, it was assumed the hemorrhage from the lung signified the presence of pulmonary tuberculosis. Although there has been a marked reduction in the incidence of tuberculosis of the lungs in the past twenty-five years, and although during the same time, increasingly accurate means have been employed in the diagnosis of pulmonary diseases, yet pulmonary tuberculosis continues as the most frequent cause of chronic disease of the lungs and is therefore the most common cause of hemoptysis. Approximately 30 per cent of patients with active, moderately advanced pulmonary tuberculosis have bled from the lungs. In view of this fact, one is justified in assuming that every hemorrhage from the lung is the result of tuberculosis until examinations have revealed the non-tuberculous origin of the bleeding. One must bear in mind that all chronic pulmonary diseases have similar symptoms, and that no one symptom or group of symptoms is sufficient to warrant a diagnosis without other data.

The one examination that probably is the most accurate in diagnosis of pulmonary tuberculosis is study of the sputum and this is frequently neglected if one depends too much on data provided by roentgenoscopy or bronchoscopy in dealing with obscure pulmonary lesions. In every case of hemorrhage from the lungs, the sputum should be examined for the organisms of tuberculosis. Although microscopic study of the sputum from patients suffering from bronchial carcinoma rarely reveals malignant cells, yet one may obtain pieces of tissue that have been coughed up with or without bleeding that may disclose a neoplastic basis for the pulmonary disease. In almost half of the cases of chronic bronchiectasis, pulmonary hemorrhage is an associated condition. The blood lost may be large in amount, and bleeding may recur frequently, especially with certain types of physical effort such as swimming. In all cases of this kind, when the sputum does not contain the organisms of pulmonary tuberculosis, and when physical examination and roentgenoscopy disclose that the lesion is situated in the lower portion of the lungs, bronchoscopy should be carried out to determine the presence or absence of bronchial stricture, neoplasm, abscess, or foreign body. It is of considerable value to have this examination performed at the time of hemorrhage. When it is made at other times, exact localization of the ulcerated area may be impossible.

Another frequent cause of pulmonary bleeding is congestion of the lungs associated with heart disease. In ordinary cardiac decompensation, congestion of the lungs may give rise to expectoration of small amounts of blood, and when pulmonary edema is pronounced, blood-tinged, frothy mucus may be expectorated. Chronic mitral endocarditis, with stenosis, is associated with loss of small or large amounts of blood from the lungs in about a fifth of the cases. This usually accompanies physical effort.

Rarer causes of pulmonary bleeding are certain mycotic diseases of the lungs, benign ulcerative tumors of the tracheobronchial tree, and vicarious menstruation. Trauma, pneumonia (especially of the influenzal type) and pulmonary infarction are the acute lesions that

most frequently produce pulmonary hemorrhage.

In addition to patients whose hemoptysis can be attributed to the causes named, many patients are observed who have had a single hemorrhage from the lungs, without recurrence, unassociated with any systemic disturbance, and the cause of whose bleeding cannot be ascertained. In such cases, it is wise to assume that the bleeding has arisen from a tuberculous

focus in the lung and to insist that a careful hygienic program be followed and that the patient have periodic examinations of the thorax. If, after careful examination, one is reasonably sure of the absence of tuberculous disease of the lungs and of heart disease, especially chronic mitral endocarditis with stenosis, direct inspection of the tracheobronchial tree should be made to determine the origin and cause of bleeding from the lung.

NERVOUS AND MENTAL DISEASES

E. L. HORGER, M.D., STATE HOSPITAL, COLUMBIA, S. C.

THE DEPRESSION AND MENTAL HEALTH

The year 1929 is generally regarded as marking the beginning of the present depression. Since then many financial institutions and big business houses have collapsed and closed their doors. The result from an economic standpoint presents in many cases pictures of financial disaster. The condition has progressed to such a degree that many people have lost their morale. In fact man has lost faith in his fellow man. Especially is this true where he has had to encounter the unscrupulous and unfair means to which others have resorted in order to obtain the things that satisfy their greed and their desire for luxury and high living. The existence of such a state of affairs over a long period of time brings a greater loss than do some of the wars the country has had.

In normal times it was estimated that about four million people were unemployed. In recent years there has been an increase in this number until last October it was estimated there were ten million one hundred twenty-one thousand (10,121,000) out of work. It is possible that this number has been decreased some by the work furnished by the government thru its various agencies.

As a result of the depression which led to unemployment and in many instances to the loss of funds stored up by the people, these people became in dire need of the various necessities of life—food, clothing, etc. The condition became so acute and so grave that the various welfare organizations found themselves unable to meet adequately the situation, because of the heavy load they carried. The people themselves became fearful and apprehensive as to their well-being. Worry and phobias threatened the mental health, and a feeling of insecurity developed.

Mental health, it might be stated, is the ability of one to adapt himself to the disappointments and adversities of life. Failure to adjust himself to

conditions is indicative of some degree of mental ill health.

Statistics are not available in regard to the development of serious mental disease nor to the increase of insanity as a result of the hard times and the suffering, but it is reasonably certain that mental health has been impaired to some extent in many persons. Undoubtedly there has been an increase in crime since 1929; the United States' Children's Bureau estimates that about one-fifth of the children are undernourished; and illness among the poor has increased. Because of a lack of funds to take care of themselves, it has been estimated that the number of patients in need of free care in hospital clinics has increased about sixty two per cent. In regard to those cared for in institutions for the chronically ill and indigent, there has been an increase of about sixty-six per cent. It appears that there has been an increase in homicides. It is also claimed by statisticians that suicides have increased by twenty-eight per cent.

There are many avenues that one may take to escape from the world of reality and its problems—avenues of escape known as defense reactions. Besides leading to suicide, insecurity leads many to resort to the excessive use of alcohol and drugs, with others, nothing short of serious mental disease will blot out reality.

As has been stated before, there has been a marked lowering of the morale of the public in general. To determine definitely the result when an individual has lost his morale is very difficult. Will he be able to "come back" or will he become an object of charity, assuming that the world owes him a living and demanding it? If he can be given an employment, this will help. Of further assistance to him will be the development in his behalf of various social activities, the establishment of recreational centers, giving him a living wage and providing proper guidance thru various social organizations.

DEPARTMENT OF ROENTGENOLOGY

R. B. TAFT, M.D., CHARLESTON, S. C.

CONCERNING THE AMERICAN BOARD OF RADIOLOGY

Specialism is necessary in medical progress, but evils have attended its development in this country. The worst of these is the assumption of the title "specialist" by men with inadequate training and experience. Methods of licensure for the practice of medicine in this country are so complicated, being under forty-nine different jurisdictions, that it has never seemed feasible nor advisable to attempt to bring specialists under legal control beyond that required by their license to practice medicine. Several of the specialties have attempted to bring about a measure of control and improvement within their own special fields by establishing examining boards to certify to the qualifications of specialists in their own special fields by establishing examining boards to certify to the qualifications of specialists in their own branch of medicine.

The desirability of instituting a board for radiology had been discussed for several years among radiologists, and the matter was brought to a head at the meetings of the American Medical Association and the American College of Radiology held in New Orleans in 1932. At that time committees were appointed by the College of Radiology and the Section on Radiology of the American Medical Association to investigate as to the advisability of forming such a board. At the suggestion of the Council of Medical Education and Licensure of the American Medical Association this matter was brought to the attention of the American Roentgen Ray Society, the Radiological Society of North America and the American Radium Society at their annual meetings, and each of these societies likewise appointed a committee to investigate the advisability of forming such a board.

The committees representing these five radiologic organizations met June 11, 1933, in Milwaukee during the meeting of the American Medical Association, effected a preliminary organization and adopted the following recommendations to be presented to each of the five associations represented:

1. That it is the sense of this joint committee that a national examining board for radiologists be formed.
2. That it be recommended to each of the five societies here represented that three members be appointed by each of the societies to constitute a national examining board for Radiology.
3. That the purpose of the Board shall be the examination and certification of radiologists.
4. That the Board thus formed be authorized to effect its own organization, elect officers, adopt rules of procedure and proceed to the examination and certification of candidates.

On January 27 and 28, 1934, at which time by-laws

and articles of incorporation were adopted, the following permanent officers were elected: H. K. Pancoast, president; A. C. Christie, vice-president; B. R. Kirklin, secretary-treasurer.

The purposes of the Board according to the by-laws are as follows:

(a) To elevate the standards and advance the cause of Radiology by encouraging its study and improving its practice.

(b) To test the qualifications of those who profess to be specialists in Radiology by arranging and conducting examinations of voluntary applicants for the certificate of the Board, and to issue certificates to those found qualified therefor.

(c) To prepare and maintain a registry of holders of the certificate of the Board.

(d) To serve the public, physicians, hospitals and medical schools by furnishing lists of those who have received the certificate of the Board and thus to assist in protecting the public against irresponsible and unqualified practitioners who profess to be specialists in Radiology.

The rules of the Board require that applications for certificate be made upon a prescribed form to be secured from the Secretary.

Each applicant must establish to the satisfaction of the Board that he is of high ethical standing, that he is a graduate of a medical school approved by the Board, that he is a member of at least one of the societies which appoint members of the Board, that he has had satisfactory experience in the practice of Radiology and that he is a physician duly licensed to practice medicine.

The by-laws of the Board provide that "each applicant for the certificate of the Board shall be examined in such manner and under such rules as the Board may prescribe due weight being given in each individual case to professional attainments, years of training and practice, teaching and other positions held." It will be understood from this that the Board intends to fix the extent and the scope of the examination in each individual case. The successive steps in a complete examination are as follows:

1. Submission to the Secretary of the prescribed application form properly filled out.
2. Submission to the Secretary of reprints or original thesis.
3. Personal appearance before the Board for oral and practical examination.

The candidate will be informed after each successive step what is further required of him.

The first examination will be held in Cleveland, Ohio, immediately preceding the meeting of the American Medical Association in June.

All radiologists interested should write to Dr. R. B. Kirklin, Secretary, Mayo Clinic, Rochester, Minnesota.

THE UROLOGICAL ASSOCIATION OF SOUTH CAROLINA

H. M. DANIEL, M.D., ANDERSON, S. C.

SEXUAL WEAKNESS OR IMPOTENCE IN THE YOUNG AND MIDDLE AGED MALE

My object in calling your attention to this subject is that the average physician, when consulted by his patient about this condition, does not regard it seriously. He usually passes it up lightly, prescribes an aphrodisiac, laughs at him, slaps him on the back and says: "I think that will fix you up all right." I maintain that every patient who is disturbed by any symptom or condition enough to seek relief should be given more consideration than that, and if the physician is not interested or has not had sufficient experience and the equipment to treat the condition, should refer him to a specialist. In case of impotence to the urologist.

The irritative form is the more common, and the one I want to call your attention to especially. Patients suffering from this condition can be greatly benefitted, and usually cured by proper treatment. The cause is, in the great majority of cases, a diseased condition of the prostatic urethra, the mucous membrane being exceedingly hyperaemic, or chronically inflamed, keeping the centres for erection and ejaculation in a constant state of reflex excitability. This condition of the prostatic urethra may depend upon gonorrheal inflammation and its sequel, stricture; excessive venereal disease; prolonged ungratified sexual excitement; strong acid or irritating conditions of the urine. Gonorrhea is by far the most frequent cause. It becomes firmly lodged in the prostatic follicles, utricle, ejaculatory ducts, seminal vesicles, or ampulla of the vasa, manifesting itself only by an occasional outbreak in the form of an acute attack. This continues over a long period of time and finally produces impotence of varying degrees. Impotence from sexual excess is frequently observed among masturbators, if this habit can be classed as "sexual." In the recently married, sexual excess frequently occurs but shortly regulates itself.

Irritative impotence from prolonged and ungratified sexual desire is usually observed in young men who frequently go on "petting parties." I have noticed a decided increase in the number of patients coming to my office in the last few years whose conditions could be attributed to excessive sexual excitement from this cause.

Sexual neurasthenia is usually well marked in these cases.

The general symptoms are those of neurasthenia, loss of mental power, vertigo, headaches, shortness of breath, indigestion, palpitation, colic, cough, emaciation, wandering neuralgic pains, nervousness and excitability.

The neurotic symptoms complained of are: a sensation as though fluid was trickling through the urethra; a tickling and burning feeling at the meatus; neuralgic aching or burning pains referred to the testicles, anus, inner surface of the thighs, hypogastric region, and small of the back; pain in the testicles and burning in the meatus after ejaculation. These patients may have frequent and urgent urination, and is usually not associated with pain, but sometimes there is marked tenesmus. They have frequent "wet dreams," sometimes two or three in one night, and notice dribbling of semen without the sensation of an orgasm.

It is interesting to observe that a great many of these patients suffering from varying degrees of impotence will go along for months and years before they get courage enough to go to the physician for relief. They are ashamed to admit that they have some sexual weakness and will go along until they become neurasthenics, finally going to the doctor for some other condition, as undue excitability or nervousness. It is hard to get out of them just what the real complaint is. As an example, I have in mind two patients whom I treated recently. One came in for urological examination, stating that I had treated one of his friends for prostate gland trouble and that he thought he had a similar condition. I made a thorough examination and found that he had a moderately infected prostate gland, which was a non-specific infection in all probability, as he denied all venereal diseases and no G. C. was found in expressed secretions. Finally, after I had treated him for six weeks or two months I gave him a rest period; he came back and I picked it out of him that he was unable to get a vigorous erection and have satisfactory intercourse, and that he was engaged to be married, and had already postponed it once for the above reason.

The other patient, a young married man, came in for a general physical examination. The only G. U. symptoms complained of were a slight frequency of urination burning or a sensation of fluid trickling out of the meatus. Examination was negative except one plus pus in prostatic secretions and the prostate was unusually tender to touch. He was very much relieved after several prostatic massages, but returned in a few weeks complaining of a burning sensation at the meatus. Knowing that he had been married ten or twelve years and had no children, I asked him if he had been practicing "withdrawal" at end of intercourse to prevent conception. He admitted this, and when asked if he had noticed some sexual weakness said that he had, and that it was a day

or two after intercourse that he had this sensation of burning water flowing out the meatus. Both of these cases discussed their condition very freely and with a great deal of satisfaction, after I came directly to the point with them. I find that most of these patients feel as though they have lifted a great burden when they find that you understand, and will help them get it off of their system by asking direct questions about their sexual habits.

The prognosis of impotence is good, except in the most advanced cases. The results in the type of cases that I am especially referring to here are most gratifying to the patient as well as the doctor; that is the ones due to chronic hyperaemia and inflammation of the posterior urethra.

The treatment is both general and local. Regulation of the patient's daily life, hours of sleep, amount of exercise, recreation and the kind should be pre-

scribed. During treatment the patient should avoid all sexual excitement of any kind, whether reading, conversation, picture shows, or associations, and cautioned against testing the efficiency of his treatment by an occasional trial of strength. He should be encouraged and assured that his condition will get well, all sources of reflex irritation must be removed. Fissures or hemorrhoids in the rectum, phimosis, or narrow meatus should receive surgical treatment.

The local treatment is to restore the entire urethra to a normal condition, strictures dilated, granular patches healed by applications, through the endoscope, and hyperaesthetic and inflammatory conditions of the posterior urethra treated by passing large cold sounds, irrigations, instillations and applications through the endoscope. The prostate, seminal vesicles, and Cowper's glands must be massaged if infected.

SURGERY

WM. H. PRIOLEAU, M.D., F.A.C.S., CHARLESTON, S. C.

"USE OF DINITROPHENOL IN OBESITY AND RELATED CONDITIONS"

While not a surgical subject, this can hardly fail to be of interest to those treating diseases of the thyroid gland. It is well known that the active constituent of fat-reducing medications is thyroid gland. This acts by raising the metabolism of the patient. Just how it effects this we can only conjecture. Possibly directly, and possibly indirectly through the sympathetic nervous system. At any rate we know that raising the metabolism is not the only effect of thyroid medication. It also stimulates the sympathetic nervous system. Clinically this is manifested by increased nervousness, palpitation, ease of fatigue—in fact, the usual symptoms of hyperthyroidism. Fortunately these symptoms generally subside when the medication is stopped. However this is not always the case. In some few cases they persist and are relieved only by an operative procedure. Even discounting the danger of precipitating a hyperthyroidism, those who use thyroid gland as a weight reducing measure often pay handsomely for what they lose on account of its stimulating effect on the sympathetic nervous system.

There has been discovered a drug—dinitrophenol—which apparently raises the metabolism without having the hormone effects of the thyroid gland. About its mode of action we can only conjecture, but at any rate it appears to be direct and not through endoc-

lines or the nervous system. It has been administered to 113 consecutive cases of obesity—(M. L. Tainter at al J. A. M. A. 101:1472 Nov. 4, 1933). No serious harm resulted, though there is reason to believe that it might follow doses large enough to cause an elevation of temperature. Three patients suffered an alteration in the sense of taste. This disappeared on discontinuing the medicine. Its significance can not be interpreted. Seven per cent of this series developed an urticarial skin rash, which was only temporary. This seemed to be the most important disadvantage in the use of the drug. Regarding the obesity, the results were very satisfactory. The dose was so regulated that there was a loss of two to three pounds a week.

From this report it appears that we have a much safer and more satisfactory way of reducing obesity than by thyroid medication. And of great importance, there are opened new channels of thought regarding the thyroid and its effect on metabolism. It is well recognized that the degree of hyperthyroidism and the basal metabolic rate do not always parallel each other. Also we are familiar with patients suffering from severe hyperthyroidism who are steadily gaining weight. Maybe we shall soon have an explanation of these apparent inconsistencies.

As yet there has not been sufficient clinical investigation to justify the general use of this drug for reducing obesity.

DERMATOLOGY AND SYPHILOLOGY

BY J. R. ALLISON, M.D., COLUMBIA, S. C.

THE FAMILY PHYSICIAN'S PLACE IN THE CONTROL OF THE CANCERS OF THE SKIN

The family physician is the first one who is consulted for information about a possible cancer of the skin and mucous membrane. Upon his advice and treatment depends to a great extent, the mortality rate of cancer. While considerable progress has been made in the studies of cancer, we are still at the stage where successful treatment depends upon the early diagnosis and thorough destruction of the lesion. The American Society for the Control of Cancer, realizing the importance of this fact, are devoting their greatest efforts to the dissemination of knowledge relative to the early diagnosis of cancer, with the hope of decreasing cancer mortality. It might surprise you to know that cancer ranks second in the causes of death in the United States. In fourteen southern states, cancer committees have been formed by the state medical societies. These cancer committees receive from the American Society for the Control of Cancer, without cost, literature, materials for illustrated lectures, and aid in the formation of cancer clinics. This service would be available to South Carolina, if we had a cancer committee and adopted the program outlined by the American Society for the Control of Cancer.

There are several general principles that would be well for the family physician to adopt in his attitude towards skin lesions. First, if he is thoroughly conversant with the treatment of potentially malignant skin lesions, he may undertake the treatment himself. Second, if he is not thoroughly conversant with all types of pre-cancerous dermatoses, he should seek advice from someone who is a recognized authority on the subject. Even if he classifies himself under the second heading, it still behooves the physician to make some effort by attending lectures, clinics and reading the literature to inform himself in a general way, about what is considered the proper line of procedure in the handling of pre-cancerous conditions in any location. This would require some knowledge of what are pre-cancerous lesions of the skin.

There are many conditions of skin and mucous membranes that may or may not become malignant. Keratoses is a pre-cancerous lesion of the skin of which are many types; senile, seborrheic, x-ray and radium; and those due to exposure to the sun (sailor's skin). These different keratoses usually form the basal-celled epithelioma (so called skin cancer). However, a certain per cent of them contain prickle-cells and may at any time change to a prickle-cell carcinoma capable of metastasis. The proper treatment of these different keratoses depends entirely

upon the diagnosis. Some are relatively benign and some are relatively malignant.

Moles are very common on the skin and of many varieties. The so-called melanotic mole which is a blue-black mole is highly malignant and once irritated and growing, usually proves fatal. Such moles should either be let alone or thoroughly destroyed. Any mole subject to constant irritation is potentially malignant. A hairy mole should be desiccated sufficient to destroy the hair follicle. Leucoplakia, or white spot disease is potentially malignant occurs principally on the mucous membranes, usually due to chronic irritation, and at times associated with latent syphilis. These conditions should be thoroughly studied as to origin, and the treatment will depend upon the possible removal of the cause, the probability of malignant degeneration, and the possibility of destruction without too much deformity.

Scars from old burns; atrophic areas from destructive disease, such as tuberculosis and syphilis; x-ray and radium scars; surgical scars; and ulcers, regardless of their origin, which are chronic and resistant to treatment are all potentially malignant. The proper treatment of these so-called pre-cancerous dermatoses will eliminate a large per cent of malignant conditions of the skin.

The majority of cancers of the skin are basal-celled. This condition seldom undergoes metastasis unless it is subjected to chronic irritation. Then it is possible for the simple basal-celled epithelioma to change to a prickle-celled carcinoma capable of metastasis, for about ten per cent of all basal-celled epitheliomas contain prickle-cells and may change their characteristics if not treated early. Epitheliomas about the eyelids, cartilages, lips, rectum, vagina, and the penis may be either a simple basal-celled epithelioma, a keratoses or a typical squamous celled cancer. To adequately treat such cases, one's experience should enable him to make a definite diagnosis from the clinical picture, for biopsy is not considered good treatment.

Biopsy is a mooted question in malignant conditions of the skin, especially in certain areas. Of course it would be instructive and add to our knowledge to know the exact pathological structure of all lesions of the skin that are removed. However, in the majority of instances in the actual treatment, it is not practical to do a biopsy for the reason that the proper removal of tissue for biopsy often entails as much trauma as the cure of the lesion itself. For example: a small keratotic lesion of the lower lip that is slightly indurated showing evidence of growth and believed to be malignant, can be destroyed successfully

with a minimum of scar formation, while a biopsy in such a lesion would add greatly to the destructive process and increase the scar formation. Where a biopsy can be made without interfering with the treatment, of course it is advisable. The ideal treatment of all lesions of the skin and mucous membrane would be at a stage where total destruction would not involve any more destruction than a simple biopsy.

There are four forms of treatment; x-ray, radium, electro desiccation and surgery. These agents may be used singly or in combination depending upon the type of lesion, size, location, age of patient and many other factors which can only be determined by experience.

Delay is probably the greatest factor in bad results attained in the treatment of skin cancer. The general physician should have several well defined procedures to follow in giving advice to possible cancer patients. Do not expect pain in early cancer; if the lesion is constantly irritated, it should be removed; do not attempt palliative treatment or burning with acids and pastes, because such treatment decreases the possibility of ultimate cure.

Cancer quacks are probably the greatest hindrance to adequate and early therapy in skin cancer. The average physician in South Carolina, I believe in the most instances, gives the proper advice and treatment. The bad advice comes from friends, relatives, and

cancer quacks. Cancer quacks are usually physicians who have been unable to make a living in the legitimate practice of medicine. They employ a paste similar to the one used by the Egyptians three thousands years ago. This paste will remove a few types of skin lesions, but it causes a great deal of unnecessary suffering and leaves an extensive and dangerous scar. They further enhance their reputation by calling all lesions they treat, cancers. I am treating now, a farmer who has suffered from the treatment of three of these quacks. He evidently had a simple keratoses on the cheek that could have been destroyed with one x-ray treatment. He now has an extensive cancer of cheek with perforation into the mouth and involvement of the mucous membrane. Such practice is criminal and this poor man who may lose his life, is only one of many who are suffering from the same type of treatment. Unfortunately these quacks do not confine their work to skin cancer. Cancer patients of all types suffer from their treatment. We need not expect laws to be passed in this state to protect these unfortunates. The law-makers themselves, often patronize the quacks. The family physician has more opportunity than any other individual or organization to decrease cancer mortality. He should be cancer minded and at all times willing and able to give the proper advice and to recognize early cancer signs and symptoms in all potential cancer patients.

SOUTH CAROLINIANA

J. I. WARING, M.D., CHARLESTON, S. C.

FIRST MEETING OF THE STATE MEDICAL ASSOCIATION

On Feb. 14, 1848, in compliance with a call from the Medical Society of South Carolina, a convention of the physicians of the state assembled in Charleston. Dr. James Moultrie held the chair. Committees were appointed on nominations, on Registration of Births, Marriages, and Deaths, on Pre-medical education, on discouraging the use of patent medicines, and on investigation of the Medical Botany of the State.

After the transaction of various business on Feb. 16 the convention resolved itself into The South Carolina Medical Association, with Dr. James Moultrie as President. At this time the Medical Society of South Carolina was the only organization of its kind in the State. For many years the meetings of the Association were held in Charleston.

MEDICAL PIONEERING IN SOUTH CAROLINA. E. A. Hines, Seneca. *Sou. M. & S.* 96, Feb. 1934, 49.

An interesting account of early medical activities in the State, with some mention of such men as Woodward, Garden, Lining, Sims, Norwood, and others.

THE DOCTOR AND THE FAMILY. C. W. Evatt, Greenville. *Sou. M. & S.* 96, Feb. 1934, 64.

A practical discussion of the relationship of doctor, patient, and family under various conditions.

SPECIALLY PRODUCED MILK IN THE SOLUTION OF THE GOITER PROBLEM. Wm. Weston, Columbia. *Sou. M. J.*, Mar. 1934, 249.

The author reviews at length the relationship of iodine to goiter. He then discusses analyses of milk samples from different points in the country, and finds that South Carolina milk leads all the rest in iodine content. Feeding experiments with milk produced and dried in this State showed startlingly good results in the way of better gain, better hemoglobin, absence of vomiting; improvement in cases of de-

(Continued on Page 81)

PEDIATRICS

R. M. POLLITZER, M.D., GREENVILLE, S. C.

SERUM SICKNESS

It is now almost 30 years since von Pirquet and Schick published their revolutionary work on Serum Sickness. Since that time its incidence has increased tremendously. What was then a rarity is now an everyday occurrence in many places. And yet from time to time following the administration of some foreign serum, one is surprised to note that some physician comments on certain signs or symptoms of that disease, as though very unusual. That is, the subject should be commonplace, but to a few its manifestations are even yet not well known.

Today we use serum of the horse, in the treatment of diphtheria and of scarlet fever, in the prevention and treatment of tetanus, in the treatment of meningitis, in erysipelas, and occasionally in pneumonia. So one need not wonder that in susceptibles or where large doses are given, as in pneumonia it should be encountered quite often.

The chief factors that control the frequency of serum sickness are route of administration, previous injection, amount injected and individual susceptibility, and to some extent the type of horse.

Some investigators claim that the disease comes on in only about 38 per cent of people, others as Clock and Heckscher place the figure at 58 to 60 per cent, and more recently it has been stated that it will be seen in 90 per cent of patients, if large enough amounts of serum are used. But in general it is believed that where less than 10 c. c. are injected only 10 per cent of people will react.

One might define serum sickness, which is a form of allergy, as an acute specific non infectious disease, characterized by fever, malaise, and eruption, along with numerous other signs and symptoms. It closely simulates the acute exanthemata, especially measles or scarlet. There is a definite incubation period, ranging from 8 to 12 days, but often longer or shorter. Usually there is nausea and vomiting. The fever, which may reach 106 degrees, but usually is from 101 to 103 degrees comes on first. Then promptly follows some swelling of the compound lymph nodes, which is annoying and painful to the patient, and puzzling to the doctor. Often this is the last sign to disappear.

As a rule the eruption is urticarial, at times the wheals being quite large and raised considerably. In other cases there is more erythema than urticaria. In some few instances there is very little skin involvement, and in still others the eruption is limited to the site of injection. The itching is often intense, and causes the patient to become almost frantic. This combined with the pain on motion induced by the

very tender enlarged lymph nodes and the nausea and fever causes much misery, and creates the impression on the part of the household that the disease is apt to be fatal. Arthralgia unless large amounts of serum is used is not common. When seen it comes on late, and quite often causes some surprise and diagnostic difficulty. Edema as part of the urticaria is extremely frequent, and should not cause concern, even though the eye-lids are completely closed. The finding of albumin in the urine does not of course signify the presence of nephritis. The doctor who is fully conversant with the symptomatology of this entity can do much to reassure his patient, and let the family know that most positively all will soon be well.

The diagnosis provided one obtains the history of the administration of serum parenterally, and takes time to make an examination is extremely simple. It should not be necessary to await the onset of the eruption, but that of course makes the diagnosis easier. Measles, scarlet and rubella can nearly always be eliminated, and one should not be misled in thinking of a recurrence of some disease. Yet occasionally it does happen that the attending physician hastily and unwisely claims that erysipelas or scarlet fever has recurred. To inject more serum into a patient already suffering from sensitization might be highly dangerous. An early diagnosis in serum sickness surely makes the physician's mind easier, and the family can be re-assured. Further, treatment can be instituted at once, often with great and prompt relief.

Aside from anaphylaxis, or serum accident which ensues within a very few minutes of the injection, one need not have fear as to the ultimate outcome of this frequent and distressing malady; for even if nothing is done, it ends within a few days. As a rule the duration is from 3 to 5 days, but it may terminate within a day, or continue for a week. Rarely there is an erythema 2 or 3 weeks after the administration of the serum.

There is to my knowledge no proven case of death on record from serum sickness per se. Of course people have died during an attack of it, while they were still ill from the pre-existing disease, as diphtheria, or scarlet fever, or tetanus. And no reference here is made to the immediate shock. Much serum sickness might be prevented. While prophylactic inoculations unquestionably are of value, and while very often indicated, yet other than serum bearing substances may sometimes be used. As an example, toxoid has now largely replaced the older toxin-antitoxin, so as to avoid the minute amount of serum. Or at times we may use serum from the cow, the

goat, or the sheep, prophylactically, and wait for some illness to use the horse serum therapeutically. It is so frequent that serum sensitization is brought about by the small prophylactic dose of tetanus antitoxin that one should not use this unless indicated. That is a punctured wound is one thing, but an abrasion or easily cleansed laceration quite another. Some practitioners today are reserving antitoxin treatment for scarlet fever for the severe cases, so as to avoid the serum. Whether this is wise or not time will tell. But it does indicate that where possible the profession prefers not to use serum. It has long been my opinion that it is not good judgment to use antitoxin as a prophylactic agent in scarlet fever or diphtheria to confer a very temporary passive immunity because of a known exposure. If the contact can be frequently seen, it is far better to await developments, for often the disease does not ensue, and if it does it can be treated in the same manner with a larger dose. Of course, all infants and children should be actively immunized against diphtheria at an early age. But today the method does not require serum.

The treatment for serum sickness is largely palliative. Antipruritic lotions are demanded and help to a degree. But adrenalin (epinephrin) is the most

efficacious agent we have. The dose should be small, and the injections repeated as often as necessary. However in children, especially those who are very fearful, doctors often delay using this valuable remedy. Calcium as calcium gluconate, by mouth or hypodermically should be and probably is of some benefit. The salts of calcium in solution are said to be helpful. Ephedrine at times seems to be of considerable value, but it is slower, and not nearly as good as adrenalin. Some authors advise giving adrenalin routinely with the antitoxin, but while this may prevent anaphylaxis, of course its action is too evanescent to ward off the sensitization which comes on days later. The treatment for nausea, adenitis, arthralgia, etc. is along general lines. Inasmuch as the patient is suffering from the presence of a foreign serum, containing toxic proteins and globulins, recovery can not be established, until they have been excreted from the blood and tissues, or neutralized. The great desideratum would be to find some antagonist to the toxic or sensitizing serum. For the present the best we can do is to avoid the production of serum sickness when possible, and to treat it energetically and symptomatically, just as soon as the diagnosis is made.

SOUTH CAROLINIANA (Continued from Page 79)

bility, slow development and failure to gain; absence of thyroid enlargement. Dr. Weston concludes that the iodine in solution in South Carolina milk is the solution of the goiter problem in children.

THE MECHANICS OF SPLEEN VISUALIZATION BY MEANS OF METALLIC COMPOUNDS, IN PARTICULAR THORIUM. H. Rudisill, Jr., Charleston and E. Shute, Chicago. J. Lab. & Clin. Med. 19, Feb. 1934, 511.

By experiments on dogs, these investigators showed that intravenous injections of thorium give excellent visualization of the spleen, and that this effect is due in part to the thorium in the stroma, but in large part to degenerative changes (cloudy swelling) produced in the organ.

AN OPEN SAFETY PIN SWALLOWED AND Passed by Rectum. G. T. Tyler, Jr., Greenville. Sou. Med. J. 27, Jan. 1934, 60.

A case report of watchful waiting for a threatened but undeveloped perforation.

THE MANAGEMENT OF ENDOCERVICITIS. A. E. Baker, Jr., Charleston. Sou. M. & S. 96, Mar. 1934, 111.

A review of the pathology, and account of treatment with coagulation diathermy.

THE CLINICAL PATHOLOGIST AND HIS RELATION TO MEDICINE. F. B. Johnson, Charleston, Sou. M. & S. 96, Mar. 1934, 97.

The presidential address delivered before the Tri-State Medical Association this year. Dr. Johnson describes the development of this specialty, its importance, and the necessity for understanding between laboratory worker and clinician. He discourages unnecessary routine laboratory work, and suggests that State Board of Health Laboratories confine their work to examinations required for preventive medicine, for control of epidemics, and for the indigent.

EYE, EAR, NOSE AND THROAT

J. F. TOWNSEND, M.D., F.A.C.S., CHARLESTON, S. C.

INDICATIONS FOR A MASTOID OPERATION

There are few other diseases that have such a varied list of operative indications as does a mastoidectomy. For in this disease there are so many manifestations to consider in determining whether to operate or to wait a little longer and watch. There are even times, when it is said to be advisable, to wait until a certain amount of bone necrosis has occurred certain symptom or group of symptoms are an operation can be done, Kopetsky, for one makes that claim.

The time element is a big factor in deciding if a certain symptom or group of symptoms are an operative indication or no. As an illustration in the early stage of an acute middle ear infection, fever is to be expected, it subsides with the rupturing or the incision of the membrana tympani and the establishment of free drainage; but, if it recurs in a week or ten days, fever then often means an operative mastoid infection. Or pain, post auricular pain, during the first day or two may be present over the mastoid antrum, especially if the mastoid be of the pneumatic type, but with the establishment of free drainage the pain disappears. But, if after about a week or ten days it returns, look carefully for mastoid trouble. On the other hand an extensive mastoid disease may be present with no post auricular pain, nor fever, so the absence of pain or fever or both does not mean that there is no operative mastoid infection present.

Discharge is another factor governed by the time element. A free discharge for the first few days of an otitis media is to be expected especially in some types of middle ear infection, but if there is a profuse discharge at the end of the third week most otologists say that one should then judge that it takes a larger cavity than the middle ear to give origin to such a profuse discharge—that the discharge must be coming from the necrosing mastoid cavity. I do not think one should wait three weeks in some cases.

That suggests another factor to consider, and that is the type of infection, the causative bacteria. Some bacteria, as the hemolyzing streptococcus cause a profuse discharge from the start. Some otologists make that type of organism the indication for an early operation, regardless of the presence or absence of many of the other indicative factors and they are often right in such a conclusion. It is certain that in that type of infection one should not expect the X-ray to show a coalescent mastoid.

The X-ray indications for a mastoid operation are also subject to a wide interpretation, varying from the simple infiltration of the mastoid cells without necrosis as is found in the hemolyzing streptococcus

to the coalescent mastoid as is found in most of the other types of infection. So the causative bacteria should be known. The X-ray interpretations also vary with the age of the patient and with the history of whether there has been a previous infection. In case J. B., age six years, the X-ray report of non-operative findings told by the Roentgenologist to the patient's parents caused a serious delay, for the negative findings were not because of absence of mastoid disease but because of absence of pneumatization. The sagging of the posterior superior wall is an important operative symptom and the post auricular swelling if determined to be of bony origin needs no comment, nor does the swelling that occurs sometimes in the neck inferior to the mastoid tip and having its origin from rupture of the inferior and almost posterior surface of the tip, a few of which cases we all have seen.

The cessation of discharge with the simultaneous onset of post-auricular pain and maybe of temperature needs little discussion.

The size of the opening in the membrana tympani, with the amount of discharge and the amount and position of bulging are factors that an experienced otologist can often size up correctly for or against a mastoidectomy, as in a case recently on the pediatric ward. It seemed only to need a better opening, though it was referred for a mastoid operation. The subsequent history has confirmed that a free membrana tympani incision was the proper treatment.

So one may ramble on. The Schilling count has proved of much more value than a total and differential, the calcium percentage in the discharge should theoretically be a good indication of bone necrosis but one time the calcium percentage was found to be low, but I operated anyway and found that the area of mastoid necrosis was walled off. The necrosis had even exposed the lateral sinus as the mastoidectomy revealed. But as I have said, the calcium per cent was not increased, so only a positive increase in calcium percentage can be considered of value, but a normal percentage means nothing.

One recent case has impressed on me the value of a statement long ago advanced as one of the sure indications for mastoidectomy. This case refers to the type of infecting organism, and the special bacteria referred to is the streptococcus mucosus. Its peculiarity is its treacherousness, mild symptoms being present for several days then the sudden onset of some serious complication. I will give briefly the history of the case only in so far as it is needed to illustrate this peculiarity of the streptococcus mucosus.

A girl, age 12, took sick Sunday night with an

earache, her first attack in that ear. The earache occurred with the subsidence of a mild attack of German measles. Monday she was better. Tuesday she was about well. Close questioning has revealed that she had for the next few days a few insignificant pains that the parents thought could not be of any consequence. But on the following Sunday night she had a severe pain in the right eye which disappeared next morning with the onset of a discharge from the right ear, this slight discharge lasted for another week. Temperature ranging 99 to 100.5. Patient feeling comfortable, any discomfort being insignificant. Saturday night came again with severe pain in the head and fever, and I first saw her Sunday morning. Slight evidences were then present of meningitis. The membrani tympani was bulging

markedly with no definite opening. A spinal tap was done and the fluid found to be under pressure and showed: Appearance, slightly cloudy, white; Total cells, 2,837; Differential, Lymphocytes 17, Polymorpho 87; Globulin 1; Sugar 0; Bacteria 0. No organisms were found even on a twenty-four hour culture not until the second tap, twenty-four hours later was cultured for twenty-four hours was any bacteria found in the spinal fluid. Then the same organism that was found at the mastoid operation as was found to be present in the spinal fluid. The mastoidectomy was performed the first day that the case was seen. A hopeless prognosis was given but the little lady did not show critical general symptoms till about the sixth day. Looking back the clinical course is quite consistent but at the time it seemed like a simple earache.

GASTRO-ENTEROLOGY AND PROCTOLOGY

BY W. T. BROCKMAN, M.D., GREENVILLE, S. C.

HIGH SPOTS OF THE ADDRESS, BY DR. S. G. GANT, NEW YORK, BEFORE THE GREENVILLE COUNTY MEDICAL SOCIETY, MARCH 23, 1934

Chronic colitis or diarrhea especially the chronic ulcerative type can best be treated and often cured by doing an appendicostomy or cecostomy and irrigating the diseased colon until cured.

He says: Surgical constipation is that type of anal canal disease such as hypertrophy of levator ani muscles from long standing anal infections, anal ulcerations, anal papillae, polyps, etc. He advocates doing a partial proctotomy by cutting the internal sphincter levator ani and external sphincter muscle

posteriorly for two inches in length. The incision should be shallow not cutting through these control muscles. This operation removes the so called rectal shelf produced by the hypertrophied muscle and relieves obstipation. He says many patients are benefited not from prostatic massage but because of having dilated and relaxed the levators.

He says further: Anal ulcers and thrombotic external piles are due to a small anal outlet often corrected by same operation. He dislikes colostomy advocates rectal excision one stage operation for rectal cancer, performs the operation in twenty minutes in males, and thirty minutes in females.

He says his objection to doing a colostomy is that patients are always after him to please close it.

Students of the Medical College of fifteen or more years ago will be glad to learn that the "Occidental" on Market Street has been reopened. It is a little more "swanky" than in their day and is now called the Occidental Grill. But as of yore there are many attractions. However, Pete Conway's is still closed.

"Cypress Gardens have been developed into a weirdly beautiful showplace in recent years through the efforts of Benjamin R. Kittredge, present owner of Dean Hall plantation. A fresh water lake on the rice planting estate of Sir Alexander Nesbitt of Dean, in 1750, was abandoned for more than a century to the sub-tropical vegetation of the Carolina

Coast, until nature had made an almost impenetrable water forest of giant cypress trees. Now from banks and islands colorful azaleas and gay blooms of many bulbs reflect their flaming colors in the onyx water. Rustic bridges and graveled paths or brightly painted canoes, which glide silently midst the cypress and moss, are the two methods of inspecting this unusual lake garden." The local committee on arrangements have obtained permission from the management of these gardens to allow members of the association, wearing their badges, accompanied by their wives or lady friends to enter for a single admission fee. The normal fee for each admission is \$2.00. Cypress Gardens is located on the highway to Florence and is thirty miles from Charleston.

TUBERCULOSIS ABSTRACTS

A REVIEW FOR PHYSICIANS

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Tuberculosis associations realize that no one can, by his own efforts, protect himself and his family against tuberculosis. They are, therefore, calling attention this year to the need of intelligent, well-directed group action. The slogan of their 1934 educational campaign is "Tuberculosis Robs You—Public Health Protects You." The modern practitioner plays an important role in public health practice. The rapid development of public health and scientific medicine, and the need for social adjustments of various kinds are responsible, here and there, for misunderstanding if not actual conflict. How cooperative relationships between the health department and the medical profession have been effected in one city, Detroit, Michigan, has been reported by Henry F. Vaughan, Health Commissioner of Detroit, and Ledru O. Geib of the Wayne County Medical Society. A brief description of the Detroit plan follows.

THE DOCTOR'S OFFICE AS A HEALTH CENTER

Virtually every qualified physician in Detroit has become, to all intents and purposes, a deputy health commissioner, and his office a center for preventive medicine.

The ultimate objective of the plan is to have the family doctor take care of his patients in health as well as in time of illness. Another objective is to re-educate the public to look to the physician in private practice for such preventive services as diphtheria protection, small-pox vaccination and periodic health examinations, rather than to depend upon public agencies and free clinics—in short, to impress upon the public mind the fact that preventive medicine is a purchasable thing, and something that is to be paid for in the same manner as any other desirable commodity.

Family Doctor is the Unit

The Detroit Plan is a group plan—the group being the organized medical society. It is not built about a unit or community health service constructed around a clinic or hospital center, but rests upon the family physician who becomes the unit on which medical practice is constructed. At present 1,100 doctors are active participants. There is no insurance scheme but a reasonable honorarium is paid to physicians for services rendered in their own offices to those who are unable to pay. Funds for this purpose come from the budget of the health department.

Physicians who have agreed to cooperate abide by certain orders and regulations prepared jointly by the medical society and the health department. The plan began with a diphtheria prevention program. It

was agreed that on certain days the cooperating physician will give toxin-antitoxin or toxoid for one dollar per treatment. The agreement does not hinder the physician from charging his client any price he chooses if the patient comes at any other hour. The physician also agrees that if the patient cannot pay he will render the service free to the patient and the health department agrees to reimburse him at the rate of fifty cents for each service. Each cooperating physician is supplied with record cards for his own use, and postcards which he mails to the health department for recording each series of toxin-antitoxin or toxoid treatments.

his scheme enables the health department continually to broadcast to the public that diphtheria immunization may be obtained at a certain price or for nothing if one is unable to pay.

While the plan was introduced with the diphtheria prevention campaign the ultimate purpose is to secure the participation of every qualified and prepared physician in the practice of preventive medicine. Recently tuberculosis prevention was added to the scheme. This plan is regarded not as a substitute to the tuberculin testing and X-ray service in the schools as at present conducted, but as a supplement to it. The procedure is outlined in the following circular which was sent to all physicians in Detroit.

Outline of Procedure

"Children and adults will be urged to come to you by an active educational program through the radio, billboards, newspaper articles, and speakers before lay groups.

"There will be issued to school children a 'Notice to Parents' urging that the children be taken to their physician. If parents do not have a regular physician the Wayne County Medical Society will furnish them with the name of one or two cooperating physicians who reside in their neighborhood.

"The first visit should include a tuberculin test and a general physical examination. Tuberculin for the Von Pirquet test can be secured without charge (for Detroit) from the Department of Health, at the Wayne County Medical Society, or at the Detroit Tuberculosis Sanatorium.

"Every individual who has a positive tuberculin test should have an X-ray examination. The roentgenologists have agreed to accept your statement regarding the ability of the individual to pay for the X-ray service. If you feel that the patient is unable to pay even a part of the X-ray cost, he may be sent to the Herman Kiefer Hospital where the X-ray ex-

(Continued on Page 95)

The Medical Atmosphere of Charleston

The present profession in Charleston carries on the medical work which has been of a consistently high order since the founding of the city more than two hundred and sixty years ago. In the earlier period of the colony there was no organized medical society; and the physicians who came from the old countries were often more interested in exploring, in governing, or in acquiring fortunes in various ways other than the practice of medicine. Nevertheless these early doctors were men of parts and prominent citizens in the development of the early community.

Fairly early in the 18th century Charleston became well known for its medical activities, and competent graduates of Leyden, Edinburgh, and other European universities established themselves here. They were men who produced original research work such as that of Lining; men who pioneered in obstetrics, as did Moultrie; who contributed to botanical and general scientific knowledge, as did Garden; who wrote authoritatively on clinical subjects, as did Chalmers—men who were members of learned societies in Europe, who helped to develop the colonial culture of the city, who combined their talents to make Charleston a productive medical center.

The existing Medical Society was organized early, in 1789, but long before this time the gentlemen of the profession met at times for the purpose of fixing fees, protesting against abuses, and for other business purposes. They were active early proponents of inoculation against the smallpox, they inaugurated quarantine measures, they struggled then as now to prevent the spread of quackery. In the Revolutionary War they played a worthy part, and in later struggles they have contributed their efforts freely.

The accomplishments during the 18th century were a fitting foundation for the men who were to propose and establish the Medical College. Its faculty was of high quality, and always the effort has been to maintain the standard set in the early days. The presence of the school is an incentive to performance of good medical work, and numerous contributions to medical knowledge have come from the medical men of the city.

The medical atmosphere of Charleston is one of high professional accomplishment, of cultural background, of pleasant professional relationship. One may find it in the meeting hall of the Society, where the portraits of distinguished members rest above the shelves of leather bound works of the masters from early times to the present, in this hall in the heart of an active and well-equipped modern hospital, just across the street from a medical school of the highest class.

Medical meetings in Charleston are numerous. The Medical Society meets twice a month. The Medico-Chirurgical Club, composed of the younger members of the Medical Society meets once a month, as does the Medical History Club, an informal organization of physicians interested in the historical side of medicine. There is a monthly meeting of the Staffs of each of the three hospitals in the city. There is also a weekly pathological conference at the Medical College which is open to the members of the profession. Nearly all of the members of the Medical Society are also members of the "Widows and Orphans Society," a charitable organization which meets once a year.

Charleston medicine carries the atmosphere of a worthy past and a progressive present.

J. I. Waring.

Roper Hospital

In order to describe the development of Roper Hospital as it stands today it is necessary to go back to the year 1845 when the Medical Society of South Carolina, a body incorporated May 10th, 1794, was bequeathed by Thomas Roper, Esq. real estate to the amount of \$30,000.00, the proceeds from same to be used, according to Mr. Roper's Will:

"To erect, maintain and regulate a hospital of such dimensions as they in their better judgment may direct, for the permanent reception or occasional relief of all such sick, maimed and diseased paupers as need surgical or medical aid, and whom without regard to complexion, religion or nation, I would they would admit therein. The site of the said Hospital or Infirmary to be in or near Charleston."

As proof of the fulfillment of his wish it will be interesting to read the inscription on a tablet commemorating this bequest which was placed in the Roper Hospital on Queen St. and later moved to the present Roper Hospital.

"This Institution was commenced in 1850 and completed in 1852. Thomas Roper, Esq. bequeathed real estate to the value of \$30,000.00 in trust to the Medical Society of South Carolina to receive the interest and reinvest the same until a sufficient fund has accumulated or aid received from Public and Private Benefaction. To erect and sustain a Public Hospital. The Donation was received in 1845.

"In 1849, the City Council of Charleston with the Honorable T. Legger Hutchinson, as Mayor in order to sustain and perpetuate the Noble and Benevolent views of Mr. Roper gave \$20,000, and land for the erection of a Hospital.

"In 1851 the City Council of Charleston with the Honorable John Schmierle, as Mayor in behalf of the upper wards recently attached to the City gave \$5,000, to complete the building.

"In December, 1851, the Legislature of the State of South Carolina gave \$10,000, for the use of the Institution.

"The following Trustees elected by the Medical College of South Carolina were in office: J. M. Campbell, M.D., Henry Winthrop, M.D., Thomas Y. Simmons, M.D., Elias Horibeck, M.D., Wm. T. Wragg, M.D., Ex-officio Chairman as President of Medical Society of South Carolina at Commencement and Thomas L. Ogier, M.D., at the Completion. Edward C. Jones, Architect, James Curtis, Builder."

Previous to Mr. Roper's bequest in 1845 the Alms House (or Poor House as it was then called,) constituted the only refuge for the sick poor of the city. The Trustees of the Roper Fund and the Commissioners of the Poor House sent memorials to the City Council in order that the two charities might be combined. This request was granted in 1855 and the City appropriated funds to be used for the care of their pauper sick and a contract was entered into with the City, the Medical Society to receive a fixed sum per annum for such care. The State Legislature also agreed to contribute \$3,000, per year.

By judicious and laudable exertions the Trustees of the Roper Fund had so increased the original bequest that in less than eight years it was possible to begin building the first Roper Hospital. However, the Medical Society lacked funds to purchase the furnishings and it was not until April 1854 that these were ordered. (It is of interest to note that no mention is made of sterilizers or preparation for anti-septics being purchased at this time.) In 1854



ROPER HOSPITAL, CHARLESTON, S. C.

there was an epidemic of yellow fever and the hospital had to be closed temporarily. Finally, January 18th, 1856, the hospital was opened and the attending physicians and surgeons elected. This was just five years and six months after the construction of the building was commenced.

The Medical Society of South Carolina operated Roper Hospital from its opening until 1873 with the exception of a brief period during the Civil War when the Federal Government took it over. It was returned to the Medical Society in 1865 and the Federal Government paid \$2,300. rental.

Owing to lack of sufficient funds to carry on, in 1873 the Medical Society leased the Roper Hospital located on Queen Street to the City of Charleston for a term of ten years and at the expiration in 1883 renewed the lease for five years. The City ran the Roper Hospital until the earthquake in 1886 when the building was destroyed. After the earthquake a large sum of money was raised by friends throughout the United States for relief work in Charleston. Some of this fund was intended by its donors for the restoration of Roper Hospital. Instead these funds were used by the Mayor at that time and his Council to build a new hospital on the site of the present Roper Hospital. The City Council refused to repair the Roper Hospital building or to renew its occupancy on the ground that the wreckage was due to the visitation of God. The Roper Fund trustees were forced to make the repairs which cost \$11,172.35. Although the City's contract with the Medical Society had still two years to run, owing to its refusal to make any repairs, it was obligatory that the repairs be made and the Medical Society was forced to make them. This building was left unoccupied for 18 years and 9 months.

The Roper Hospital Fund has been held and guarded as a most sacred trust by each member of the Society and it has always been the Society's most earnest wish and effort to carry out the terms of Mr. Roper's will. The movement to give the City of Charleston better hospital facilities and to utilize the Roper Fund for this purpose began in December 1903 when Dr. W. P. Porcher, in his inaugural address as president of the Society, called attention to the Roper Fund, how it had remained idle and the poor sick of the city deprived of its benefits, since the abandonment of the old Roper Hospital on Queen Street in 1886. Acting on this incentive the Society appointed a committee of nine to formulate plans to accom-

plish this purpose. The committee was composed of the following:

Doctors: T. Grange Simons, H. P. Jackson, T. P. Whaley, A. J. Buist, R. S. Cathcart, Chairman. Dr. J. L. Wilson being appointed later in the place of Dr. de Saussure, P. G. de Saussure, (deceased), Charles M. Rees, W. P. Porcher, A. E. Baker.

This committee, after organization called on Mr. Rhett, the newly elected Mayor, and informed him of the lack of hospital facilities of the City and also that the medical institutions of the City were being conducted without medical representation. He appreciated the motives and arranged for a joint meeting with a committee from City Council. After several conferences with this committee, extending over a period from December 1903 to June 1904, a memorial was sent to City Council from the Medical Society of South Carolina, offering to build a hospital on the site of the City Hospital with the Roper Fund and to contract to take care of the sick poor of the City for a fixed sum per annum—also including the City Dispensary Service as an Outdoor Department.

The memorial submitted by the Medical Society to City Council was adopted by Council and the Medical Society then elected a committee of five to carry out the purpose of the memorial and to act as a building committee. The committee was composed of the following:

Doctors: R. S. Cathcart, Chairman; T. Grange Simons, A. E. Baker, Robert Wilson, Secretary, Edward F. Parker, W. Peyre Porcher, President, Medical Society of South Carolina.

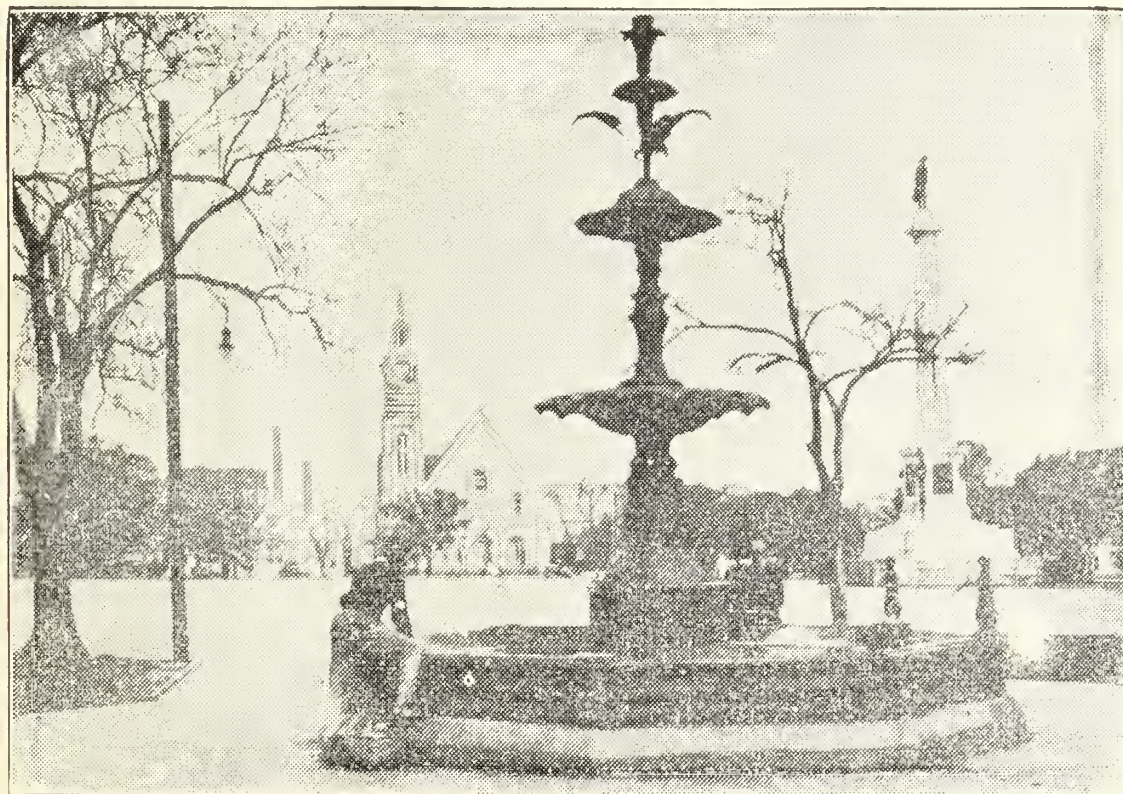
From an original capacity of 200 beds it now has facilities for caring for 350 patients. In addition to fairly large surgical, medical, pediatric and obstetrical departments in the main building there are also a number of rooms to care for private patients there is the Riverside Infirmary which accommodates private patients only and a separate communicable disease department; the Kinloch Nurses Home and several other large buildings accommodates the overflow of pupil nurses, supervising nurses, interne staff and the superintendent.

In the wards and private rooms 6,000 patients were treated in 1933 and there were 77,000 free patient days. The out-patient department now known as the Shirras Dispensary, is located in the basement of the main building. There were 64,000 visits to the various clinics held during the past year.

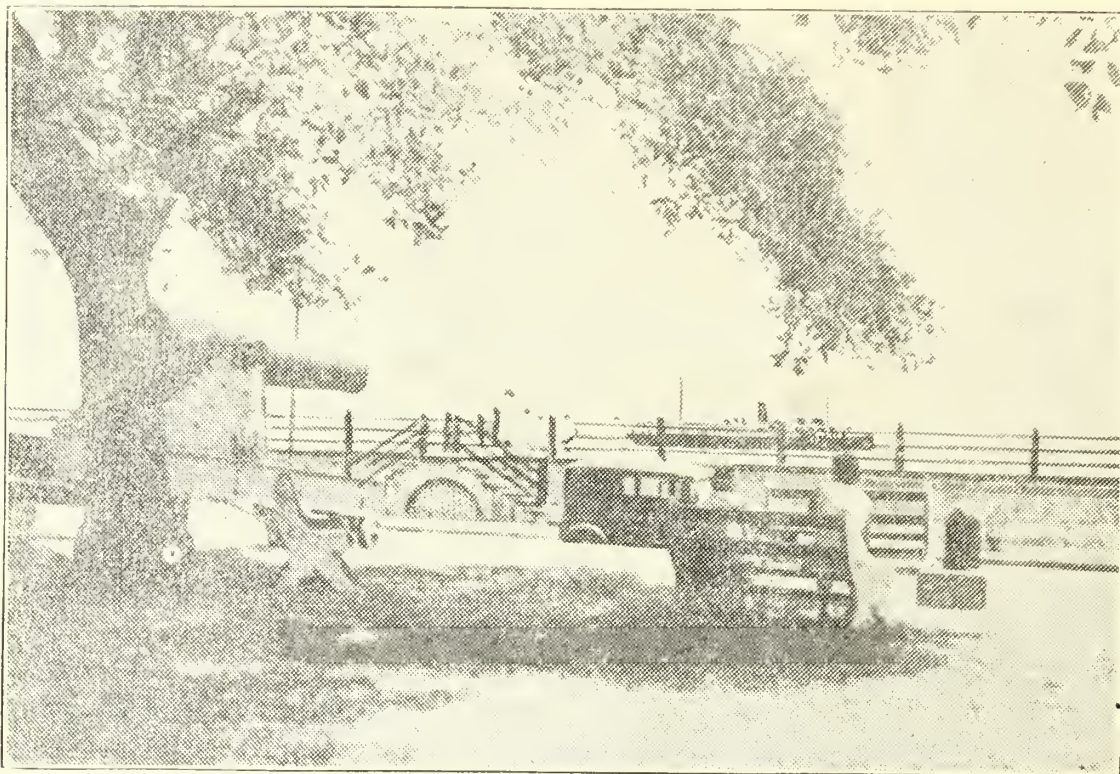
The hospital is maintained by appropriations from



AIRPLANE VIEW LOWER SECTION OF CITY AT ASHLEY RIVER



MARION SQUARE LOOKING EAST



BATTERY LOOKING SEAWARD

the City and County, from receipts from pay patients in its wards and rooms and from the Riverside Infirmary and by donations from the Duke Endowment. In addition to these sources of revenue the Medical Society holds in trust many substantial endowments, the proceeds of which are expended for the care of poor patients and improvements in the hospital plant.

During the period when the hospital was under the administration of the city authorities not a single endowment was made but since the resumption of hospital service under the direction of the Medical Society the endowments have continually mounted until they are now approaching the million mark.

Roper Hospital in its administration and operation is unique among hospitals in this country. As far as can be ascertained there is no other hospital in America which is conducted in a similar manner. The hospital plant is owned by the Medical Society of South Carolina. It is administered through a board of commissioners elected by the Society. Details of management are carried out by the superintendent, approved by and under the direction of this board. The professional service to the patients is rendered by the faculty of the Medical College of the State of South Carolina through an agreement with the Medical Society. All laboratory facilities of the college are utilized by the hospital by an arrangement mutually beneficial to both. It is the belief that the intimacy of the relationship between the Medical Society, Roper and the Medical College has contributed much to the maintenance of high medical standards and harmonious professional contacts.

These ample facilities furnishes excellent clinical material for teaching purposes, Roper being the teaching hospital for the Medical College of the State of South Carolina.

The training school for nurses under the joint auspices of the hospital and college authorities accommodates about one hundred pupils.

R. S. Cathcart and W. Atmar Smith.

A Brief History of Medicine in South Carolina 1670 to 1808

A medical society for the advancement of the healing art was founded in 1789 and incorporated in 1794. At their monthly meetings they converse on the prevailing diseases; examine and record their meteorological observations, and discuss some medical question or subject. The members are by their rules under obligations to furnish in rotation some original medical paper, which, after circulating among the members, is made the subject of conversation and discussion at their next meeting. Of these papers, a few have already been published. Others remain sufficient both in number and importance to make a volume which probably will in time be brought forward to public view. In all cases respecting the medical police of Charlestown application has been made to this society for their advice and it has been cheerfully given and essentially contributed to form beneficial regulations for preserving the health of the inhabitants. Three institutions emanated from the medical society of great public utility; the Humane society—the Charlestown dispensary, and the Botanic garden. An apparatus for the recovery of persons suffering under suspended animation was purchased by the society and lodged near the most frequented wharves with directions how to treat the sufferers. The members tendered their medical services when

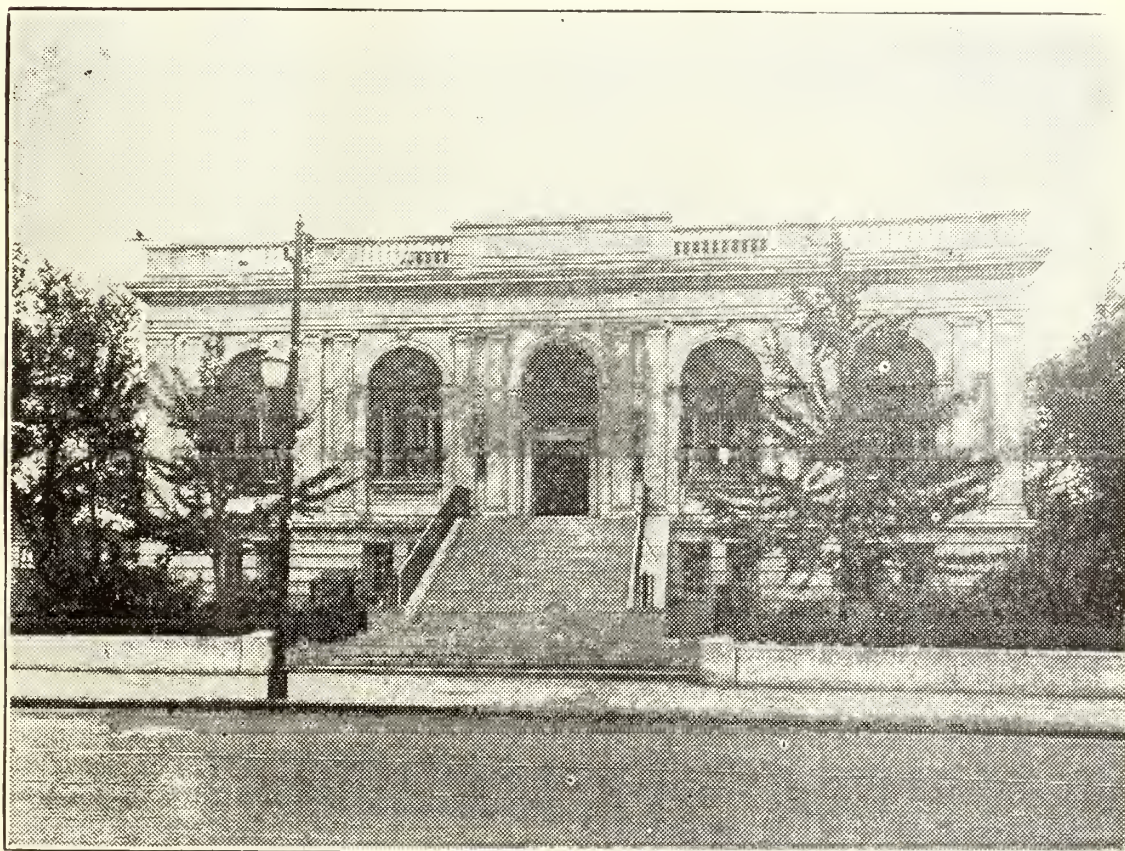


ST. FRANCIS XAVIER INFIRMARY

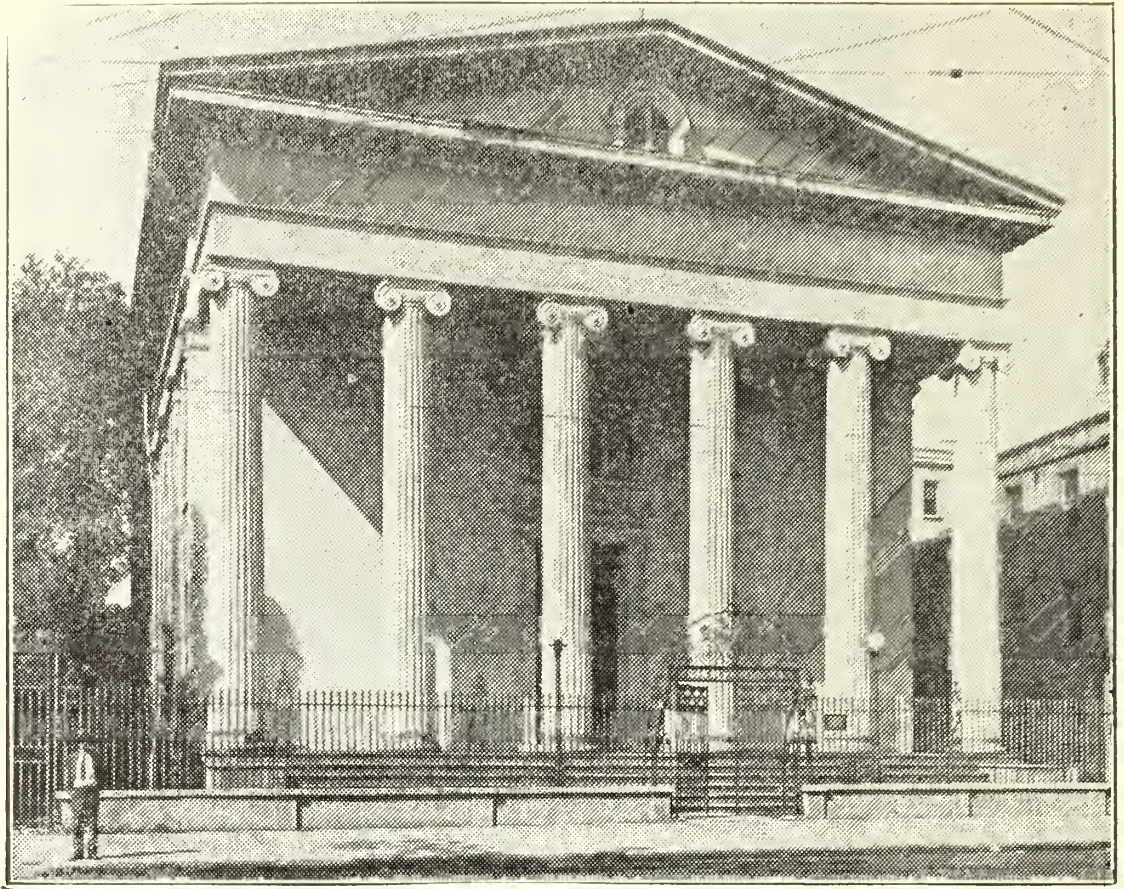
The Saint Francis Xavier Infirmary, under the care of the Sisters of Our Lady of Mercy, was opened, October 1, 1882. An extensive patronage made it necessary, in 1896, to build an annex.

In 1900 a training school for nurses was organized. This school has, since that year, graduated a magnificent army of women who help to maintain the highest standards of the nursing profession both in Charleston and throughout the State of South Carolina. A social service unit, having its centre at the Neighborhood House, American Street, also functions under the direction of the Infirmary.

The original frame building gave place, in 1926, to the beautiful new St. Francis Xavier's a building as moderate as it is handsome. Not, however, to the design or the equipment of the hospital is its success due, but to the sincere and devoted interest of the physicians connected with the hospital and training school and to the daily sacrifices of the consecrated members of the staff.



CHARLESTON LIBRARY SOCIETY



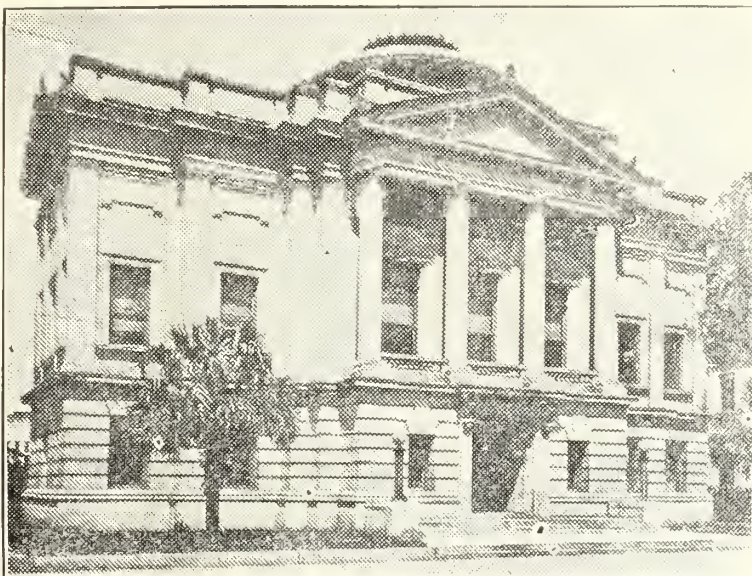
HIBERNIAN HALL

called upon. They also applied to the city council for their aid, who directed that all articles used, and all assistance rendered, should, if required, be paid by the city; and that any retailer of spirituous liquors who refused the use of his house for trying the process of resuscitation should receive no new licenses for carrying on his business. The second institution, or the Dispensary, was instituted for the medical relief of the poor in their own houses. Most of the physicians and surgeons of the society in rotation gratuitously attend and prescribe for the dispensary patients. These are admitted to the benefit of the institution by tickets from trustees. The city council appoints the trustees and also the dispensary apothecary. To the latter an annual salary is paid from the city treasury for his medicines and services. Thus medical advice and attendance can be obtained at their own habitations gratuitously by all the indigent inhabitants who apply for it; and the whole expense has hitherto cost the city no more than 1,000 dollars per annum. The young physicians, when admitted members of the medical society, are classed into pairs; and in monthly rotation with the elder members, prescribe for and attend all dispensary patients. In cases of difficulty, provision is made for consultations with some of the elder physicians appointed for that subject by the medical society. In addition to the manifold advantages derived to the more indigent inhabitants from the institution, it proves and excellent practical school for the younger physicians, and furnishes a conspicuous opportunity

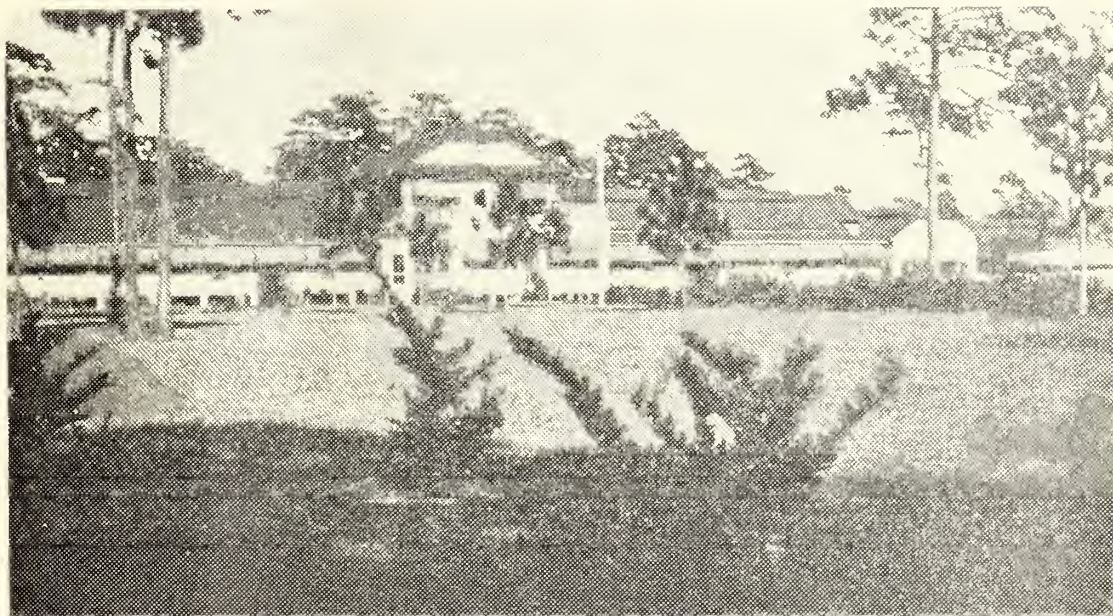
for introducing their industry, talents, and acquirements to public observation.

The Medical Society of South Carolina was constituted in the year 1789, and consisted of the following members: Peter Fayssoux, Alexander Baron, Tucker Harris, David Ransay, Andrew Turnbull, Isaac Chanler, George Logan, George Carpenter, Robert Wilson, Elisha Poinsett, James Lynah, George Hahnbaum, John Budd, and Thomas Tudor Tucker.

The Botanic society was formed and incorporated in the year 1805. The Medical Society gave to it three hundred dollars, fifty dollars per annum, and a large lot of land which had been generously given to them by Mrs. Savage, now Mrs. Turpin, to be used as a Botanic garden. The inhabitants were invited to join the association, and on their annual payment of any sum between four to ten dollars, at their option, they were entitled to privileges in proportion to their respective subscriptions, and became members of the Botanic society. An annual sum of 1,176 dollars thus obtained from voluntary subscribers, has given activity to the project. The garden was opened in the year 1805, and has been superintended ever since by a commission chosen partly by the Medical society and partly by other members of the Botanic society. This commission keep in constant employ an experienced practical Botanist, and a few laborers under him. The institution has flourished beyond the most sanguine expectations of its friends. It is now enriched with a considerable number of plants, both indigenous and



GIBBES ART GALLERY



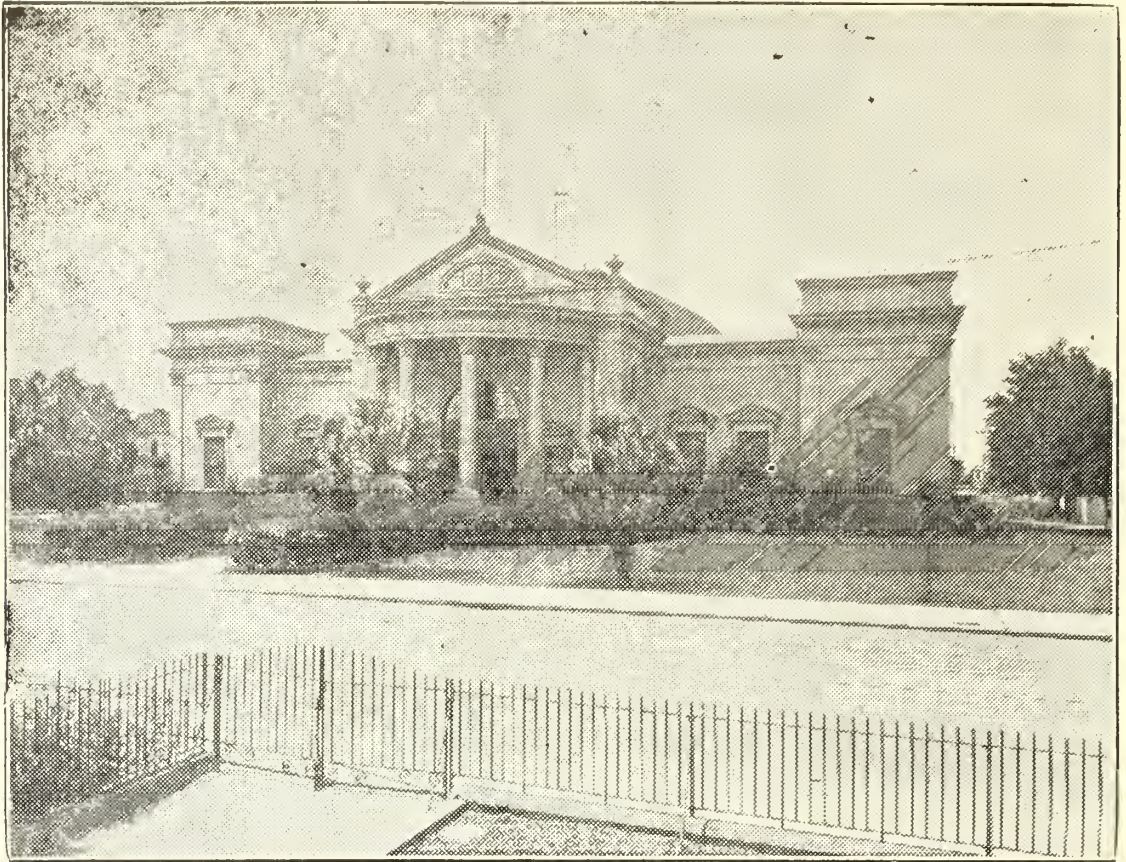
PINEHAVEN SANATORIUM

Pinehaven Sanatorium is the local tuberculosis hospital for Charleston County. It is owned and operated by the Charleston County Tuberculosis Association and is maintained by funds received from the county, from receipts from pay patients and by donations.

It is located six miles from Charleston on the main highway and was opened for reception of patients in 1924. There are fifty beds which are continually filled, thirty for white and twenty for colored. The patients come largely from Charleston County although when there is a vacancy out-of-county patients are accepted on full pay basis.

The professional staff is made up of a Medical Director, Superintendent and four graduate nurses and other attendants. There are two undergraduate internes. Mrs. Ashley Halsey, Executive Secretary of the Charleston County Tuberculosis Association, is business manager.

The sanatorium is utilized for clinical teaching of tuberculosis to the students and nurses of the Medical College of the State of South Carolina.



CHARLESTON MUSEUM, THE OLDEST MUSEUM IN AMERICA

exotic, arranged according to the Linnean system, and additions are constantly making to it by the citizens and from foreign countries. From the proceeds of a lottery now pending, hopes are entertained that the society will be enabled to enlarge their plan so as to make their garden the repository of everything useful, new and curious in the vegetable world. A society of practitioners of physic from several surrounding districts has been lately formed, which now hold their meetings in Union district, under the name of Esculapian society of South Carolina. The duties and exercises imposed by this society are similar to those imposed by the Medical Society of South Carolina. Their funds are intended for the purchase of a medical library.

For eighty or ninety years after the first settlement of South Carolina, the practice of physic was almost entirely in the hands of Europeans. Among these were several able physicians who possessed an accurate knowledge of the diseases of the country.

The 18th century was more than half elapsed before the Carolinians seriously undertook to educate their sons for the practice of physic, or before any native of America had established himself in South Carolina as a practitioner of medicine. About the year 1760 a few youths were put under the care of respectable physicians in Charlestown who, after spending five or six years in their shops, doing the duty of apprentices, and reading practical medical books, spent three or four seasons at the University of Edinburgh and then came home invested with the merited degrees of Doctor of Medicine. They were well re-

ceived by their countrymen and readily established themselves in business. This success encouraged others to follow their example and ever since a medical education has been more common. Anterior to the Revolution nothing short of a European education was deemed sufficient to attach the confidence of the public to any medical practitioner; but the growing reputation of the University of Pennsylvania resulting from the splendid talents of its Professors, and the solid attainments of its graduates, has done away this impression. The conveniency of attending medical lectures in a neighborhood city for some time past, and at present, draws three in four of the Charlestown medical students to Philadelphia in preference to Edinburgh at the distance of 3,000 miles and in a climate often too cold for young Carolinians. The study of medicine becomes daily more fashionable, and the first people in the State now educate their sons for physicians.

In addition to the regular practice of medicine, there is much that may be called domestic. The distance of physicians, the expense, difficulty and delay in procuring their attendance, has compelled many inhabitants of the country to prescribe for their families and sometimes for their neighbors. Wesley's primitive physic, Tissot, Buchan, Richetson, Ewell, or some plain practical author is to be found in almost all of their houses. With the aid of some family medicines, and of some well known vegetable productions, under the guidance of experience they prescribe for the sick and often succeed beyond expectation.



BAKER SANATORIUM

The Baker Sanatorium located on the Colonial Lake was opened in 1912 for the care of surgical, medical and obstetrical patients. It is an open institution, all members of the local medical society being permitted to attend patients therein.

It was one of the first two of the smaller hospitals in the state to meet the standards of the American College of Surgeons. This institution is conducted by Dr. A. E. Baker as surgeon in chief, his assistants, and a staff of graduate nurses, the training school for nurses having been discontinued, as is being done in the smaller hospitals over the entire country.

In cases of surgery they are more at a loss; but even here by the aid of common sense and from the pressure of necessity aiding invention, they sometimes perform wonders. The author of this work in the year 1779, examined the stump of a man living near Orangeburg, whose leg, after being horribly mangled, had been successfully amputated several years before by one of his neighbors, with a common knife carpenter's handsaw and tongs. The last instrument was applied red hot to staunch the bleeding. The stump was far from elegant, but with the help of a wooden leg the patient enjoyed all the advantages which are secured by the most dexterous performance of amputation. There was no surgeon within sixty miles of the sufferer.

Capital planters have their sick house or hospital—their medical chest—their tooth drawer and bleeder—and often their midwife for family use. The negroes are the chief objects of these establishments. From the simplicity of their disorders, resulting from their plain ailment and modes of life, the benevolent intentions of their owners are often carried into full effect. The pride of science is sometimes humbled on seeing and hearing the many cures that are wrought by these pupils of experience, who, without theory or system, by observation and practice acquire a dexterity in curing common diseases.

In the infancy of Carolina when European physicians monopolized the practice of physic, there were more experiments made, more observations recorded, and more medical writings ushered into public view by the physicians of Charlestown, than of any other part of the American continent. Dr. John Lining communicated to the Royal Society meteorological observations on the weather of Charlestown for the years 1738, 1739, 1740 and 1742, which were the first ever published. He also favored the public with a series of judicious statistical experiments, perseveringly conducted through the whole of the year 1740.

Dr. Lining was one of the first experimenters in the novel subject of electricity, on which he corresponded with Dr. Franklin, soon after the discoveries

of that celebrated man had astonished the philosophers of both the old and new hemisphere. He also, in the year 1753, published an accurate history of the yellow fever, which was the first that had been given to the public from the American continent.

Dr. Lionel Chalmers made and recorded observations on the weather for ten successive years, that is from 1750 to 1760. The same able physician furnished a practical account of the opisthotonos and tetanus, which was communicated to the Medical Society in London, in the year 1754, and afterwards published in the first volume of their transactions. He also prepared for the press an account of the weather and diseases of South Carolina, which was published in London in 1776; but his most valuable work was an essay on fevers, printed in Charlestown in the year 1767. In this he unfolded the outlines of the modern spasmodic theory of fevers. Hoffman had before glanced at the same principles; but their complete illustration was reserved for Cullen, and laid the foundation of his fame. Doctor Garden, about the year 1764, gave to the public an account of the virtues of pink root and at the same time gave a botanical description of the plant. This truly scientific physician was much devoted to the study of natural history and particularly of botany and made sundry communications on those subjects to his philosophical friends in Europe.

In compliment to him, the greatest botanist of the age gave the name *Gardenia* to one of the most beautiful flowering shrubs in the world.

William Bull was the first native of South Carolina who obtained a degree in medicine. He had been a pupil of Boerhaave, and in the year 1734 defended a thesis "*De Colica Pictorum*" before the University of Leyden. He is quoted by Van Swieten as his fellow-student, with the title of the learned Dr. Bull.

John Moultrie was the first Carolinian who obtained the degree of Doctor of Medicine, from the University of Edinburgh, where, in the year 1749, he defended a thesis "*De Febre Flava*." Between the years 1768 and 1778 ten more natives obtained the



CITADEL CADETS PASSING IN REVIEW

same honor. These were Isaac Chanler, Peter Fays-soux, Thomas Caw, Charles Drayton, Tucker Harris, Robert Perronneau, James Air, George Logan, Zacharia Nefuville and Robert Pringle.

Since the revolutionary war the number of native students has very much increased. Among them are several young men of great hopes. It is no inconsiderable evidence of the increasing prosperity of South Carolina and the progress of medicine knowledge therein, that within the last twenty-five years, or since the peace of 1783, many more natives of the States have graduated doctors of medicine than all the Carolinians who had previously obtained that honor from the first settlement of the province. Among them are physicians and surgeons who are equal to the judicious treatment of every disease and the dextrous performance of every operation of surgery.

Three attempts have been made to regulate the admission of candidates for the practicing of the healing art in Carolina; but all failed. Clergymen and lawyers, before they are authorized to exercise their respective functions, are examined and licensed by competent judges; but the practice of physic is free to every man or woman who chooses to undertake it.

Excerpt from David Ramsay's History of South Carolina from 1670 to 1808. (A rare volume. Ed.)

High Points in the History of the Medical Society of South Carolina

Organized in 1789, the Medical Society of South Carolina, which is now the county medical society of Charleston County, was the tenth medical society to be formed in the county and the third state medical society, those of New Jersey (1766) and Massachusetts (1781) being older. Its founders were Peter Fayssoux, Alexander Baron, Tucker Harris, David Ramsay, Andrew Turnbull, Isaac Chanler, George Logan, George Carter, Robert Wilson, Elisha Poinsett, James Lynah, George Hahnbaum, John Budd, and Thomas Tudo Tucker.

Almost immediately after organizing, on January 3, 1790, a plan for the establishment of a dispensary was submitted. The dispensary was to be put into operation as soon as 200 pounds be subscribed, and each subscriber was to have the privilege of having one patient on the books for one year for every 25 shillings subscribed, and an account of every person, disease from which he suffered and the results of treatment was to be recorded.

Provision was made very early for the establishment and development of a library through fines and

contributions, the nucleus of which, according to Middleton Michel, was a gift of books made by Robert and Samuel Wilson, the splendid 18th century library which is now a treasured possession of the Society, and which a distinguished visitor said belongs not to Charleston but to the entire country, bears testimony to the culture and learning of the founders of organized medicine in our state.

As early as 1809 the publication of an American pharmacopoea was proposed, and in 1818 when a proposition was received from the New York medical society to cooperate in such an undertaking the committee to whom the communication was referred, reported "That having examined the same carefully are fully impressed with the importance of the subject and are very desirous of effecting the proposed object your committee find that this Society had anticipated the subject on being presented with a copy of the Pharmacopoea of the Massachusetts Medical Society and had recommended a measure very similar."

The Society has been concerned in the development of three important public enterprises, the Shirras Dispensary, the Medical College and the Roper Hospital. The president of the society has always been one of the trustees of the fund bequeathed by Mr. Shirras in the early part of the century for the establishment of a dispensary which is now operated in connection with the Roper Hospital. When Samuel Henry Dickson and his associates undertook the organization of a medical college the prestige of the Society was utilized and the college was established under its aegis as the Medical College of South Carolina. A few years later when the chair of surgery became vacant a rift occurred between the society and the faculty of the college over the election of a successor to Dr. Ramsay which led to the formation of a new college by the faculty, the Medical College of the State of South Carolina. The latter name was



FORT SUMTER HOTEL

retained when the breach was healed in 1839 and the two colleges coalesced. The trusteeship of the fund left by Mr. Thomas Roper for the erection of a hospital was vested the medical society and the fine hospital which is now managed by the society and which affords clinical material for the students of the Medical College is witness to the manner in which this trust has been administered.

Those who have visited the society hall in the Roper Hospital will recall the chair at the president's desk. This chair was given the society by the American Medical Association in commemoration of its meeting in Charleston in 1851 when the society was host. It was at this meeting that South Carolina was honored by the election of James Moultrie to the presidency of the national association.

Robert Wilson

TUBERCULOSIS ABSTRACTS

(Continued from Page 84)

amination will be made without charge (for residents of Detroit) and a report will be sent you.

"The charge for this examination should be arranged between the physician and the patient but no one should be turned away because of inability to pay.

"We expect that a fee of ten cents will be paid for each report sent in.

"When a positive diagnosis is made, the case should be reported to the Department of Health on the regular forms provided for that purpose. The state law requires that these records be not open to public inspection."

With this outline was sent a letter signed by the Wayne County Medical Society, the Detroit Tuberculosis Sanatorium and the Department of Health inviting the physicians to participate. Those who reported received a second letter thanking them for their cooperation, stating where tuberculin might be obtained and urging them to attend a series of clinical conferences arranged by the joint staffs of the sanatoria. With this letter were enclosed examination blanks, and postcards on which to report cases found.

Health officials and representatives of medical associations are watching with keen interest the experiment at Detroit. While it may not be adaptable for all communities it throws light on the problem of medical and public health relationships and suggests the basis on which cooperation may be effected.

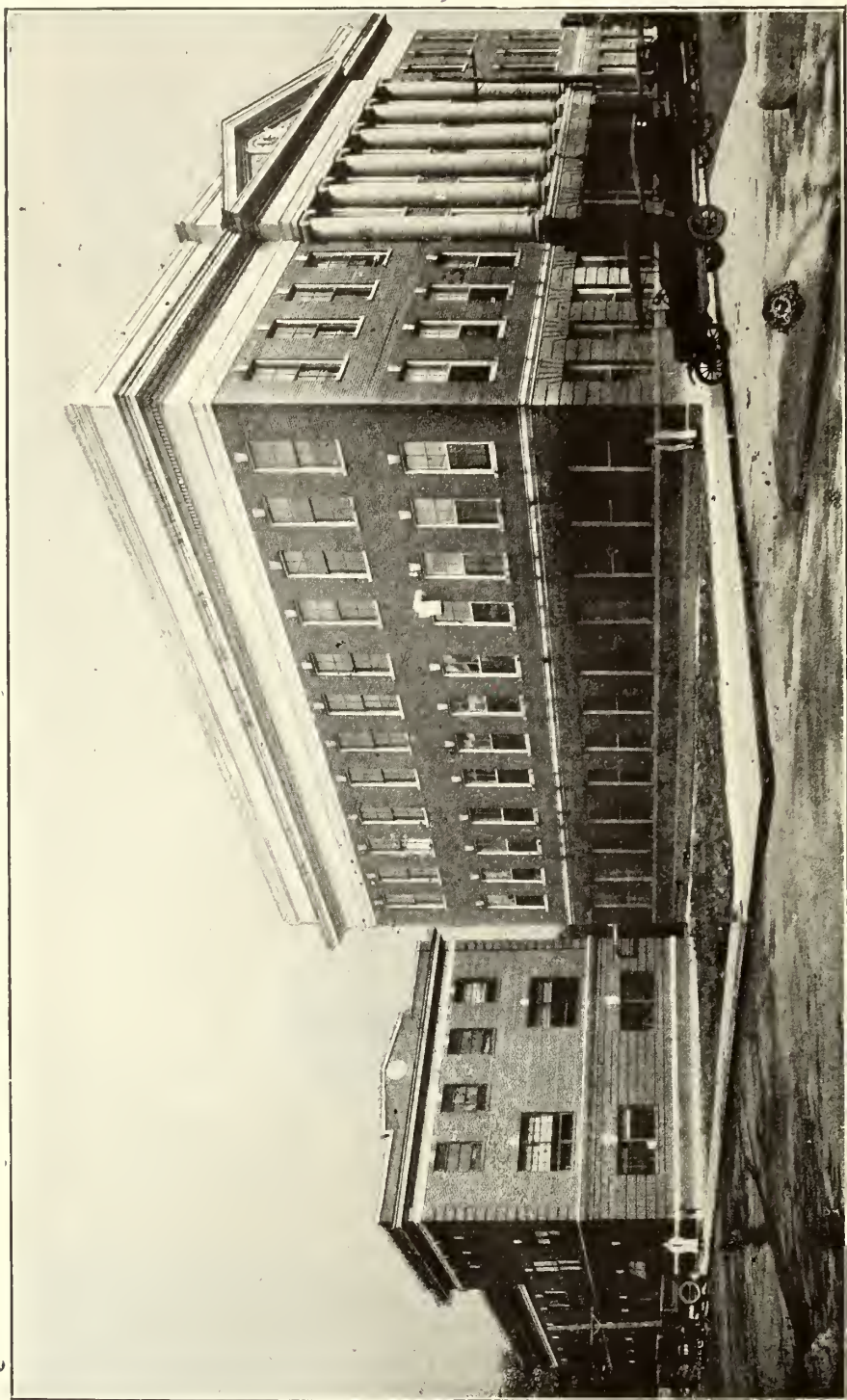
ATLANTIC SPORTS



YACHTING



SURF BATHING



MEDICAL COLLEGE OF THE STATE OF SOUTH CAROLINA, CHARLESTON, S. C.

PUBLIC HEALTH

BY DR. B. F. WYMAN, M.D., COLUMBIA, S. C.
DIRECTOR OF RURAL SANITATION, STATE BOARD OF HEALTH

The General Assembly of the State of South Carolina, which has just closed its Session increased the appropriation for the State Board of Health from approximately \$76,000 to about \$100,000. This increase is largely due to the additional sums of money provided for the distribution of biologicals and State aid to County Health Work.

Particular attention should be directed to the fact that they allotted an increased appropriation in order that the Executive Committee of the State Board of Health may meet at least ten times during the year. The contention of the Executive Committee being that with these frequent meetings they can be kept in closer touch with the affairs of health.

The salaries of the members of the staff of the State Board of Health were continued at the level of 1933-34 Appropriation Bill. In fact all items of the

Appropriation Bill including salaries, travel and supplies were maintained at the previous level.

The activities and functions of the Bureau of Rural Sanitation and County Health Work seems to meet with the full approval of the General Assembly. If money had been available the sum of \$69,000 would have been provided. In fact, this sum of money was provided by the State Senate but was reduced somewhat by the Free Conference Committee due entirely to the lack of State revenue. The Rural Sanitation Program which has been carried on in an intensive way for the past year has continued to meet with the approval of the Relief Administration of the Federal Government and we have been allotted sufficient funds to employ sixteen (16) inspectors for the rest of the year. At the present time this program is entirely devoted to the building of sanitary privies.

OUR ADVERTISERS

This Journal conforms strictly to the ethical requirements of The American Medical Association in its advertising policy. The readers of The Journal may look with confidence on the reliability of the ads published herein from month to month. An aggressive interest in securing more ads on the part of members of the association is highly desired in order that The Journal may increase its usefulness.

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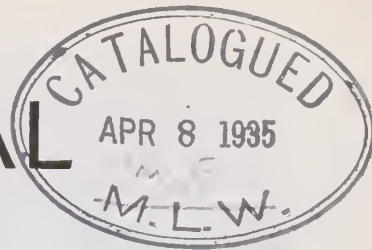
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Baltimore, Maryland

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South Carolina Medical Association



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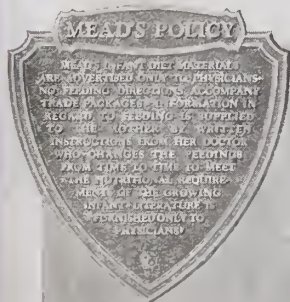
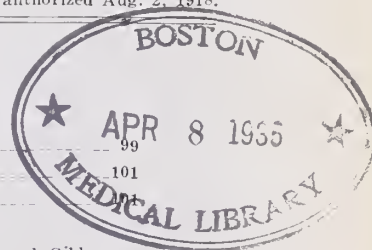
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MORE SIGNIFICANT NOW THAN EVER BEFORE—THE MEAD POLICY

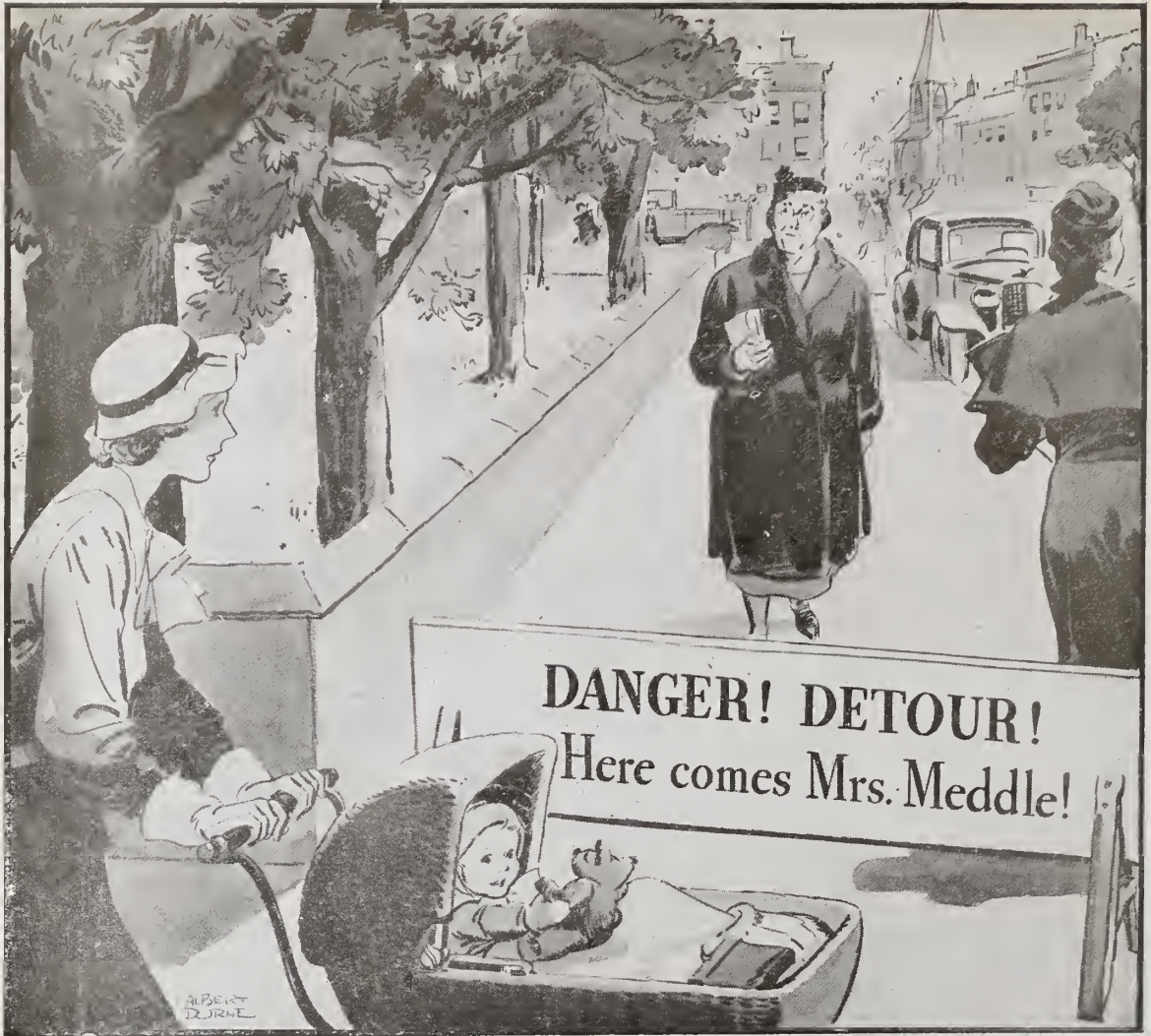
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Broadoaks Sanatorium

MORGANTON, N. C.

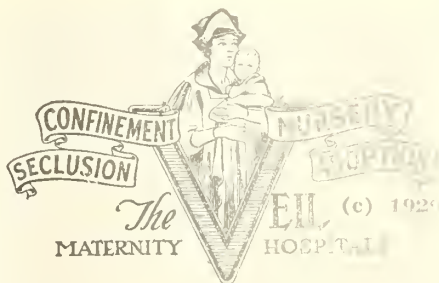
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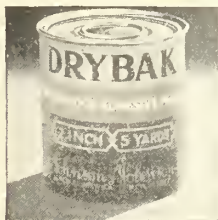


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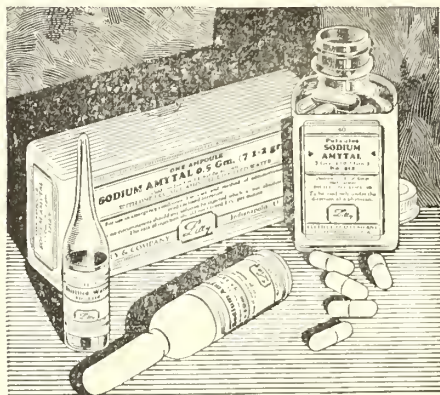
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EDITORIAL

DR. WILLIAM EGLESTON, PRESIDENT SOUTH CAROLINA MEDICAL ASSOCIATION 1934-35

Dr. Egleston was born September 2, 1873 at Winnsboro, South Carolina. He was educated at the old Mt. Zion Academy there and at the University of the South, Sewanee, Tennessee. He was graduated in medicine from the Medical Department University of Nashville, Tenn. in 1898. At one time he was a teacher in the Medical Department of the University of the South at Sewanee. In 1900 he married Annie Bonham Aldrich of Barnwell, South Carolina. He has practiced medicine since 1900 at Hartsville. Early in his professional career Dr. Egleston became a profound student of preventive medicine, particularly with reference to malaria. At the Summerville meeting of the State Medical Association in 1909 he read a paper on the following subject, "Sanitation in Small Towns." In this paper Dr. Egleston outlined the successful ef-

forts in the control of Malaria in the town of Hartsville. This represented pioneer work of the highest order and it was so recognized throughout the country. Dr. Egleston's loyalty to organized medicine has brought to him many honors by the profession in his section of the State and his wide knowledge of public health as shown by the pioneer work at Hartsville led to his election to membership on the Executive Committee of the State Board of Health in 1909, following the death of Dr. James Evans of Florence. Perhaps, Dr. Egleston is best known throughout the State for his enthusiastic activities as a member of the State Board of Health. This was clearly demonstrated when he was elected to the Chairmanship upon the resignation of Dr. Robert Wilson from that position in 1931. During the year that Dr. Egleston has been the President Elect he has visited many sections of South Carolina and in a very admirable way has interpreted to the profession and to the public the outstanding achievements of the State Board of Health.



DR. WILLIAM EGLESTON

During his entire professional life Dr. Egleston has carried on a busy medical practice and found the time to devote considerable attention to civic and professional activities.

Dr. Egleston comes to the Presidency at a

time when medical economics is of paramount importance and by virtue of his experience as a business man he will bring to the Association a type of leadership sorely needed at this time.

DR. SAMUEL E. HARMON, PRESIDENT
ELECT OF THE SOUTH CAROLINA
MEDICAL ASSOCIATION

One of the foremost leaders in organized medicine in South Carolina was elevated from the Council to be President Elect at the Charleston meeting, May 1, 1934. Dr. Harmon early in his professional career became imbued with the unlimited possibilities of organized medicine as the means whereby the physician may not only promote his own interests but particularly render a larger service to his clientele and the community in which he lives. Dr. Harmon was born in Lexington County, South Carolina, in the Saluda River Valley which is now under water as a result of the Lake Murray development. The son of Frederick Harmon the Second and Elvena Seay, of German Irish parentage. Dr. Harmon attended the country schools in the vicinity of his birth and later the city schools of Columbia and Newberry college. In 1899 he graduated from the Medical Department of the University of Pennsylvania. Subsequent to his graduation he did a general practice for some ten years. During the period of his general practice he was preparing himself for general surgery by frequent visits to the great medical centers of this country and taking post graduate courses there such as the Post Graduate Medical School and Hospital, New York. About twenty-five years ago Dr. Harmon limited his practice to general surgery.

At the Aiken meeting of the State Medical Association in 1918, Dr. Harmon was elected Councilor from his District and in 1923 was made Chairman of that body, a position which he has held with commanding fidelity until he was honored with the office of President Elect. It is not too much to say that Dr.

Harmon has adorned his long connection with the Council with rare courage, optimistic vision, and constructive leadership. He will bring to the Presidency a year hence an experience in organized medicine of invaluable scope. This new honor, therefore, has come to one preeminently qualified from every standpoint.

THE CHARLESTON MEETING

The Eighty-sixth Annual Session in Charleston was a great success. The attendance was around 400 and with the allied organizations probably 500. All the plans were carried out with marked precision and strictly on time. The program itself was unusually attractive as was evidenced by the large crowds attending every session even until the last. The distinguished visitors acquitted themselves with marked contributions. The papers in general were of a high order and the discussions admirably timed and appropriate. The Legislative body has perhaps never had such a large representation present, numbering about 85 from practically every county in the State. The time taken up by the House of Delegates in its deliberations has been much shortened. Dr. Robert E. Abell, the President, presided with a poise and intimate grasp of details to be envied by any presiding officer. The reports of the various officers and committees indicated a progressive advance of organized medicine in South Carolina notwithstanding many deterrent factors earlier in the year. The report of the Secretary showed an increase of membership in many counties and the reinstatement of quite a number of smaller county societies.

The Association meets in Florence in 1935 and the well known hospitality of that important medical center always attracts a good attendance.

ORIGINAL ARTICLES

Symptoms Suggestive of Duodenal Ulcer Arising From Hookworm Infection

By J. Heyward Gibbs, Columbia, S. C.

Symptoms referable to the gastro-intestinal tract are well recognized as a part of the picture of hookworm disease. Stiles(1) refers to the variable appetite, to the perverted desires for dirt, plaster, ashes, etc., and hazards the idea that the prevalence of tobacco chewing and snuff dipping among Southern natives might result from uncinaria infestation. He lists nausea and vomiting, attacks of epigastric pain and tenderness as symptoms of the disease, and quotes Ashford, King and Gutierrez as saying that pain and tenderness in the epigastrium are the "most constant, the most suggestive and the most clearly marked symptoms of the digestive tract." Constipation is said to be so common "that in some localities hookworm disease is known as 'constipation'." But, in the review of the literature at my disposal, I have been unable to find a reference to the symptomatology of duodenal ulcers that might be associated with hookworm disease, and which, at times, may be so suggestive as to lead to operation for the supposed ulcer. My experience in this connection has been sufficiently striking to make me feel justified in reporting some of the illustrative cases.

The life history of the hookworms that attack men, the *Necator Americanus*, of the New World form, and the *Anchylostoma duodenale*, or the Old World form, is so well known that only passing comment need be given to it. It is interesting, however, to recall that Looss succeeded in demonstrating that the larvae of this parasite find their way into the skin of the host through the lesions that are commonly known as ground-itch, that they pass through the veins to the right heart, that they are pumped into the pulmonary alveoli, enter the air cells, find their way into the trachea, thence to the

pharynx, and are swallowed—completing their circuitous journey by finding a happy home in the mucous membrane of the small intestines.

Text books on pathology and clinical medicine state that the site of fixation of the hookworm is in the small intestines, principally in the ileum and in the jejunum, and little reference is made to the duodenum as a habitat. But the name *anchylostoma duodenale* implies that this is a frequent point of attack, and Faust(2), in describing the pathology of strongyloides infection says: "in severe cases there is extensive erosion of considerable areas of the pyloric, duodenal, jejunal and ileac mucosa, so that it has a raw beefsteak appearance." It is probable that in many cases of hookworm disease there is an actual ulcerative lesion in the duodenum and that there is an irritative lesion in many when true ulceration has not taken place.

Henderson(3) has described an anti-peristalsis in the duodenum as a presumptive sign of intestinal parasitosis. This sign is seen fluoroscopically with the aid of a barium meal as a reversed peristalsis in the duodenum, and, at times, takes on the appearance of a churning movement, the duodenal contents moving backward and forward under direct observation. Henderson reports thirty-five cases in which this sign was noted, and hookworm eggs were found in the stools of thirty-three of this number. We have observed this phenomenon in some of our cases. However, Henderson says nothing of the duodenal ulcer symptomatology in his group of patients.

Soltan(4) reports a case of pyloric obstruction resulting from hookworm infection. In this patient an epigastric mass was palpable, and a preoperative diagnosis of cancer of the stomach was made. At operation an extra-duodenal mass was found which was making pressure on the pylorus so as to produce obstruction, and hookworms were found in the mass of inflammatory tissue.

These pathological findings and clinical observations leave little doubt that the duodenum

is frequently the habitat of the hookworm.

CASE I. On March 5, 1920, W.R.H., a white man, 21 years of age entered the Columbia Hospital, complaining of pain in the left upper abdomen. His family history and past history were without significance. He denied ever having had ground-itch. His present illness began ten months before with attacks of severe pain in the left upper abdomen which "tended to bore through to the back." The pains lasted from 3 to 5 hours. He had not found that eating produced the pain, but had found that the pain tended to come on when his stomach was empty, and he had occasionally been relieved by taking a little food. The pain was not sufficiently regular in its appearance for him to look forward to it at certain hours. He had suffered with "indigestion" for quite a long time. Ten months before I saw him a diagnosis of gastric ulcer had been made and he had been operated on but no ulcer found. The surgeon had reported "an enlarged spleen, enlarged glands and a diseased appendix." He had no return of his epigastric pain after the operation until one month before I saw him, an interval of about eight months without symptoms. In the past month his symptoms had returned in full force, and he said that he had passed blood in his stools for several days.

The *physical examination* showed a young man of good colour and nutrition with no signs of discomfort. The abdomen revealed a high right rectus scar. No masses were felt. The spleen was not palpable and was not enlarged on percussion. The gall-bladder region was negative. There was marked tenderness and muscle spasm over a localized point just above and to the left of the umbilicus.

The *urine* contained no albumin, no sugar, and was free of pus, blood and casts. Many amorphous urates were present.

In the *stool* several hookworm eggs were found. Chemical tests for blood were negative.

An *Ewald test breakfast* yielded 50 cc. of gastric contents after one hour. The free hydrochloric acid was 30 and the total acidity 48. There was no blood and no lactic acid.

The *blood picture* was 79 percent hemoglobin (Sahli), 7,800 white blood cells and a differential count showing 4 1-2 per cent eosinophiles.

The *Wassermann reaction* was negative.

The X-Ray of the *Urinary Tract* was negative.

The X-Ray of the *Gastro-intestinal Tract* was reported as showing "a high stomach which does not conform in size and shape to the type of patient. There is a sharp spasm at the pylorus, with defect in filling of the first portion of the duodenum. Stomach is entirely empty after 3 1-2 hours."

The patient was given oil of *Chenopodium* through a duodenal tube as suggested by Kantor (5) and many hookworms were recovered in the stool.

There was a complete disappearance of the gastric symptoms for a period of six months when the patient presented himself again, saying that his attacks had come back. He was found at this time to be having typical hysteria and was relieved by hydrotherapy and psychotherapy. His stools were negative and his eosinophile count was 1 per cent.

CASE II. H. L., an unmarried, white man, a lawyer, noted in his college days as a football player and still engaged in coaching a prominent team in the State, consulted me on October 19, 1926, complaining of "stomach trouble." He stated that for the past seven or eight years he had suffered from pain in the left upper abdomen, the pain coming on about twenty minutes after eating and again when the stomach was empty. He had found relief from the taking of food and soda. The pain did not come with unfailing regularity day after day, and he did not have long periods of weeks or months without gastric symptoms. He often suffered from a "sour stomach and belching." He had had no nausea, had never vomited blood and had not passed blood in his stool. His *family history* was unimportant and his *past history* was negative except that he had had his appendix removed 10 years before and his tonsils operated on 3 years ago. His usual weight was 165 pounds and he weighed 170 at the time of his examination. He was 5 ft. 7 1-2 in. tall.

The *physical examination* showed a well developed and well nourished young man with good colour. There was nothing of importance except in the examination of the abdomen which showed a low right rectus scar and an

area of tenderness and localized muscular resistance to palpation in the left upper quadrant. There were no palpable masses and no palpable organs. The gall-bladder region was negative. The blood pressure was 115/70, the pulse 76 and regular and the temperature 97.4-5.

The *urine* showed a faint trace of albumin, no sugar, quite a few scattered pus cells, no blood and no casts.

The *stool* revealed hookworm eggs and gave a positive test for occult blood.

The *gastric analysis* resulted in recovering 100 cc. of an Ewald breakfast, gave a free hydrochloric acid value of 61, a total acidity of 71, with no blood and no lactic acid.

The *blood* showed a haemoglobin of 84 per cent (Sahli), a white blood count of 5,600 and there was 4 per cent of eosinophiles in the differential.

The *Wassermann reaction* was negative.

An *X-Ray of the Urinary Tract* was negative for stones.

The *X-Ray examination of the Stomach* was reported as follows: "Stomach is normal in size and position, empties very rapidly, and there is a churning in the duodenum and considerable delay of the barium in the duodenum. The duodenal cap could be filled with difficulty.

The patient was given carbon tetrachloride but no report was made as to the recovery of parasites. On November 8, 1926, his stools were negative for hookworm eggs and he was free of gastric symptoms. On March 21, 1927, four months later, another examination was also negative.

CASE III. W. C. K., a white man, 26 years of age, an automobile mechanic by occupation, was seen in the Columbia Hospital on October 8, 1929.

His *complaint* was nausea and pain in the upper abdomen and in the appendix region. He said that he had been having more or less digestive trouble for the past five or six years. The pain in the upper abdomen has tended to come on when the stomach was empty, and he has found relief from the taking of food. The pain has never been very bad. It has never come on with clock-like regularity, and he has not gone for long intervals without pain. He was recently examined in another hospital and told that he "had an ulcer or a polyp in the duo-

denum" and had been advised to be operated on.

The *family history* had no bearing on his condition.

The only points of interest in his *past history* were that he had had ground-itch in childhood, that he had suffered from constipation and that he had passed small amounts of blood in his stool at times in connection with mild haemorrhoids. His usual weight was 160 pounds. He weighed 150 pounds at the time of the examination and was 5 ft. 7 1-2 in. in height.

The *physical examination* disclosed a soft systolic murmur at the apex of the heart which had all of the characteristics of a haemic blow. The abdomen was entirely negative except for slight complaint on deep pressure over McBurney's point. There was no tenderness in the upper abdomen, and the spleen was not palpable.

The *urine* was negative.

The *stool* gave a positive test for occult blood, and many hookworm eggs were found.

A *test meal* was not done.

The *blood* showed a haemoglobin of 75 per cent (Dare), a red blood count of 3,950,000, a white blood count of 6,600 and an eosinophile count of 4 per cent.

The *Wassermann reaction* was negative.

The *X-Ray study of the stomach* was reported as showing an irritable, rapidly emptying stomach with marked pylorospasm and a duodenal bulb which "was soon fairly well filled but which appeared to be very irritable." The appendix was visualized, and the x-ray operator made a diagnosis of "chronic appendicitis."

On October 13th, the patient was given carbon tetrachloride and hookworms recovered in the stool. He had a rather severe toxic reaction from the drug.

On October 29th, he was practically free of stomach symptoms, and the stool was negative for ova.

The patient was last seen on May 17, 1931, about two and a half years after treatment, and he was free of symptoms except for slight tenderness over the region of the appendix. He weighed 171 pounds. The stool was again negative.

CASE IV. J. J. McD., a white mill-worker, 31 years of age, appeared at my office on March

30, 1933, complaining of being nervous and weak and of having "ulcer of the stomach." He stated that he had considered himself a normal man until about seven months before when he had suffered a sudden attack of cramp-like pain in the upper abdomen. He was examined in Columbia a short time after this, x-ray studies included, and he was told that he had a duodenal ulcer. He has been on a diet since that time, but had continued to have digestive troubles consisting of nausea and epigastric discomfort. He had had no typical hunger pain and had not had relief of his discomfort from taking food. He had had relief from soda. He had been growing progressively weaker and more nervous.

His family history was unimportant.

In his past history he stated that he had suffered from rather frequent attacks of sore throat, that he was constipated, that he had had gonorrhoea five years before, that he drank whiskey moderately, that he smoked excessively and that he had been inclined to irritability and depression. His usual weight was 137 pounds. He weighed 136 pounds at the time of the examination, and was 5 ft. 9 1-2 in. in height.

The physical examination showed an undernourished man with rather poor colour and with the general appearance of nervousness and mild depression. The thyroid isthmus was palpable and there was a small area of thickening in the isthmus. In the abdomen there was a visible fullness in the caecal region and gentle peristaltic movements were seen here. Intestinal patterns were also visible in the left iliac fossa, appearing and then disappearing. There was no suggestion of gastric peristalsis. There was mild complaint on palpation in the right iliac fossa, but more pronounced discomfort on palpation in the epigastrium. On careful palpation, this epigastric tenderness was found to result from pressure over the abdominal aorta and its primary branches. There was no pain on pressure over the duodenum. The spleen was not felt. In other respects the physical examination was unimportant. The blood pressure was 110/85; the pulse 80; and the temperature 98 1-5.

The urine was negative except for an occasional pus cell.

The stool contained hookworm eggs and no blood.

The gastric analysis showed free hydrochloric acid of 61 and a total acidity of 76. There was no blood and no lactic acid.

The blood count was: Haemoglobin 75 per cent (Sahli); total white cells 14,400; and eosinophiles of 16 per cent.

The Wassermann reaction was negative.

The X-Ray pictures of the stomach that were made seven months before were inspected, and were found to indicate a hyperactive stomach, a spastic pylorus and an irritable duodenum.

On March 25th the patient was given carbon tetrachloride. No report on the recovery of the parasites was received.

On April 23rd the patient was again at my office saying that he now had no trouble with his stomach, that he was gaining in strength and that he was much less nervous. He had gained 8 pounds in weight. His stool revealed no hookworm eggs.

My office records show 75 cases of hookworm diseases. Of this number, 39 (52 per cent) patients complained of digestive symptoms, such as epigastric pain, nausea and heartburn. There are thirteen cases of tapeworm infection and 7 (54 per cent) presented the same type of symptoms. One of these patients had attacks of excruciating upper abdominal pain which led him into an extensive exploratory operation. His pain disappeared, never to return, after a dose of male fern. Of 34 cases of ascaris infestation, 27, or 80 per cent, had so-called digestive troubles. Only one of this group had typical hunger pains that were relieved by the taking of food. There is one case of strongyloides infection, and this man had digestive symptoms.

In my experience, the clinical picture suggestive of duodenal ulcer that is associated with, and, in fact, caused by the presence of intestinal parasites, is, in most instances, readily differentiable from the true disease. The differentiating points are as follows:

1. The symptoms that are caused by parasitic fixation in the duodenum are not typical ulcer symptoms. The patients have a hunger pain, but they do not have the pain with the unflinching, clock-like regularity of true ulcer. The pain seems to be located quite frequently in the

left upper abdomen. The sufferers from duodenal ulcer, irrespective of treatment, will classically become symptom free at intervals and go for months with "perfect digestion." The patient with intestinal parasites has his symptoms continue without such periods of relief. The true ulcer patient often puts his finger on a very localized point of tenderness in the right upper abdomen, saying that this spot can be covered with a coin of varying size, the intestinal parasite victim complains of much more diffuse tenderness, if he complains of it at all.

2. The physical examination yields almost nothing of exact differentiating value.

3. The blood picture of an eosinophilia should always suggest the possibility of an intestinal parasite, and is often the lead that brings us to a correct diagnosis. The eosinophiles vary in these diseases from 2 per cent to as high as 17 per cent in our series, though much higher counts have been reported.

4. Careful examination of the faeces give the most positive information. But, no matter what method of stool examination be used, the success of a search for parasitic eggs will depend to a marked degree upon the suspicion of their presence.

5. The X-Ray findings in the stomach and duodenum are to some extent similar in duodenal ulcer and in parasitic disease of the intestinal tract. The stomach is irritable and tends to empty with abnormal rapidity in both conditions. The pylorus is spastic and the duodenal cap is abnormal. However, in duodenal ulcer the duodenal deformity persists in spite of every effort to overcome it, while the duodenal deformity resulting from parasitic disease can be made to disappear under fluoroscopic manipulation. The back and forth, churning movement in the duodenum associated with hookworm disease, and described by Henderson, is an important diagnostic criterion.

Intestinal parasites are found with sufficient frequency to warrant us all in maintaining our interest in them, and hookworm disease is still of such incidence in our locality as to make it advisable that we stay on constant watch for it and all of its manifestations. The duodenal ulcer syndrome is one of the signals that we must look for.

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President's Address

An Obligation and a Responsibility

By Robert E. Abell, M.D., Chester, S. C.

The past generations of the medical profession have lived in vain, if we cannot study the history of medicine, and profit by this study. We should emulate and even improve upon their advancement, and at the same time we should profit by their mistakes. Especially should we study the influence upon the profession, both for good and bad, that existed outside of the profession, and be guided by them in our efforts for the future of medicine.

In the beginning all people were naturally savage and ignorant and as a result of that ignorance superstition was general. They thought that disease came directly from the spirits. Some individuals among the masses who were shrewder, more clever, and sometimes even queer, were thought to have supernatural powers and they became the *medicine men*. As much as we might hate to admit it, they were the first members of our profession.

The early Egyptian medicine of about 2500 B. C. is one of the most ancient medicines of a civilized people. The Egyptians carried out a religious ceremony of healing and also used medicines. They made some attempt at surgery and used splints for fractures. Later the Egyptians used astrology in medicine and until this good day some of that superstition, as you know, still exists.

Grecian medicine in its earliest days was in the hands of Aesculapius, a Grecian religious hero, whose daughters were Hygieia and

*Read before the South Carolina Medical Association, Charleston, S. C., May 2, 1934.

Panacea. These priests used some knowledge of medicine, but they took the position that the gods brought on disease and only the gods could take it away. While they would pray for the patient, they would not take any personal responsibility in the matter. Throughout the period of medicine that we have been discussing it is most evident that it was controlled largely by two external influences—that of superstition and religion. It occurs to me that the only real good that came out of this period of medicine was the results obtained from psychotherapy, which in my mind was accidental as it is today in certain cults and sects.

When Greek culture was at its height came the real father of medicine; the great Hippocrates who lived about 450 to 350 B. C. No doubt his very great accomplishments were made possible by his intellectual honesty, and his willingness to accept responsibility. He relieved the gods of their responsibility and placed it upon the shoulders of the profession, exactly where it belonged. He divorced medicine from religion and superstition and as a result medicine made great advancement. He was the first to take clinical histories at the bedside. Using accurate observation and common sense, he defined and classified disease. He coordinated and recorded in a systematic way the isolated existing facts. He proved that symptoms were but indications of an underlying disease. Hippocrates was very keen for accurate observation and greatly opposed to speculation. He said—"To know is one thing; merely to believe one knows is another. To know is science, but merely to believe one knows is ignorance."

The works and teachings of this man were wonderful for the time but unfortunately within a century after his death medicine, along with general civilization, was on the decline. As a result of victories of the Roman armies, Grecian medicine was taken into Rome about 300 years after the death of Hippocrates, to displace to some extent the Roman medicine which was similar to the Greek medicine prior to the time of Hippocrates.

During the centuries ending and beginning with the birth of Christ Roman medicine was revived by Celsus, Dioscorides, Aretaeus and Galen. The latter was the last of the great

physicians of the Roman period. He experimented to demonstrate physiological facts. He was a great believer in the use of herbs in medicine, a system of healing known later as the Galenical system. During this period as a result of there being larger cities in the Roman Empire than there had been in Greece, the streets in these larger cities were paved, sewers put in, and a good supply of water secured which was the beginning of sanitation. This, however, fell into disuse after the fall of Rome.

This brings us to the middle ages in which medicine was absolutely dominated by two external influences, that of the church and that of the Feudal Lord. Initiative, power and authority were taken away from the profession. No doubt during this period many medical geniuses lived but they could not develop because of external domination. As a result of the crusades the Arabs took their medicine which was somewhat of the Galenic type into western Europe.

Our modern medicine begins with the Renaissance, 1453 to 1600. Scholars after having thrown off the yoke of the church and Feudal Lord brought back the teachings of Hippocrates. As a result of the new freedom such men as Paracelsus, Vesalius and Pare developed. We should not look upon any of these with misgivings because they were wanderers, for it was the only way which they could find out what was going on. While in this period there was more freedom yet it was not complete as is illustrated by the fact that Servetus, who came near anticipating Harvey's discovery of the circulation, was burned at the order of Calvin who was founder of the church to which I belong.

Paracelsus was a great believer in mineral medication and a follower of Hippocrates rather than Galen. He was very bold and as a result of his boldness escaped the fate of Servetus, which tended to give the medical men more of a feeling of liberty and independence. Vesalius was the first true anatomist. Pare was known for his common sense and for being a very practical surgeon, as exemplified by his condemning the use of boiling oil, and advising the use of the truss and ligature.

In the 17th. century Harvey discovered the circulation of the blood, and he did this in a

methodical, scientific way. He was somewhat ahead of his time because it was some years later that this knowledge was fully applied from a practical standpoint. Kircher about this time first used the microscope in studying disease. Sydenham who lived at this time was a man of keen observation, and common sense. His description of disease was excellent.

The 18th. century gave to us John Hunter who was critical of surgical methods that had been used in the past. He set to work on surgical pathology and to take into consideration physiology as well as anatomy in deciding on surgical procedures. He was a great contributor to surgery. We also have in this century Jenner, the discoverer of vaccination for small pox. He is, without question, the father of preventive medicine which is of such great importance today.

The beginning of the 19th. century was very different from the ending because of inventive improvements. As a result of medical advancement, sanitation came into being. The wonderful work of Pinel and Dix transformed completely the handling of the mentally sick. Florence Nightingale organized nursing and made it a dignified profession. Humanitarianism was born during this century, largely under the leadership of medicine. Outstanding medical men of this century are too numerous to mention, but we will have to mention Laennec, discoverer of the stethoscope; Semmelweiss who worked on control of puerperal sepsis; Lister whose name is linked with antiseptics and asepsis; Pasteur, the chemist who worked on bacteria; and Robert Koch who worked in the same field. We find in this century also the wonderful work of Crawford W. Long, Morton, Simpson and Wells on anesthesia.

In the first one third of the 20th. century we have had the discovery of the parasite of syphilis by Schaudinn. The diagnostic serum test by Wassermann, and then in turn the discovery of salvarsan by Erlich. Practically the entire field of organotherapy has been opened up with the various hormones and other internal secretions. Probably the greatest of these is Insulin as worked out by Banting and Best. Then we have the work that has been done on the vitamins and the use of liver extract in combating pernicious anemia.

Dr. Howard W. Haggard of Yale University from whose book on the rise of medicine from superstition to science, I have reviewed many of the historical facts in this address, said—"Six hundred years ago men believed that disease was due to the wrath of the gods; they prayed and died. Three hundred years ago they believed it due to meteorological disturbances and contaminated air; they closed their windows at night and burned coal and powder in the streets—and died. Today we turn from such omniscient powers as the Gods and the weather to prosaic matters, such as exterminating the mosquito, the killing of rats and their fleas and the delousing of the traveler, and we live free from the plague, malaria and yellow fever, though we have not conquered death, merely prolonged life."

This review of the history of medicine brings to our attention the fact that wonderful strides have been made since the beginning, especially in the last few centuries. This is illustrated by the fact that the average length of life has been increased from eight years to fifty eight years. It is the duty and the privilege of the present generation of the profession so to do their duty that the generations to come shall receive medicine from us with the advancement that they will have a right to expect. It is my opinion that if we keep outside influences from dominating medicine, that normal advancement will be made.

To me the great danger of outside domination lies in the manner in which medical economics are handled in the future. From the committee on the cost of medical care, we have had brought to our attention again the fact that there are great masses of people who as individuals cannot pay for their medical care, whereas if they were in a group, the group could easily pay for the members of a group that might become sick. The above fact is agreed upon by everybody who has given the matter any thought, even the majority and minority of the committee on the cost of medical care. In other countries Governments have recognized this fact and have taken steps to take care of the situation. In our own country, Industry in certain localities has recognized it and taken such steps. In other sections of our

country organized medicine is making some attempt at solving the problem.

In South Carolina the negro population and the very large industrial population, both of whom have comparatively low earning ability, make it imperative that this most important economic question be given consideration. In my opinion it is going to be given attention, and that soon by one of the following: the United States Government; the State; the church, Industry or the medical profession. If either of the first two mentioned takes the matter in hand then we shall have State medicine and I am sure that none of us want that. If the church should take over the matter, (and it is a wonder to me that they have not considered it because of the humanitarian appeal) it might lead to the bad effects that religious domination had in the middle ages. I cannot help thinking of a comparison between some industrial heads and the Feudal Lords of the past. Thus to my mind, in order to prevent domination of medicine from the State, the church or the industrial heads in the future, it is clearly the *obligation* of the present generation to solve this great economic question and to do it now.

It seems to me that the following plan in this State would be ethical, honest, fair and workable.

The County society should organize and secure a charter for a non profit corporation. This body then will insure the health of a group that is composed of members whose income is not greater than a given amount which proves to be the maximum sum that he may receive and still be in need of health insurance. Now in case the County society will not take action I see no reason why a leader or a group of leaders within the County society should not take this step, but with a definite view of turning this set up over to the County society when they have proved to the society the wisdom and value of the step. I cannot impress upon you too much the importance of income limitation in this group. If health insurance is to succeed we must maintain the principle of the well to do helping to take care of the less fortunate, by their continuing to pay sufficient fees to make this possible.

The relationship that normally exists between the family and the physician should by all

means be maintained. Because an individual has a low income is not a just reason why he should be made to give up his right to select his own physician. I think it is our duty to protect the ignorant against themselves by making it obligatory that any physician who will be allowed to work under the plan must be reputable. Personally I would go a step farther and say that they must belong to their local medical society. If in a County we should have a minority who were unwilling to work on this plan, then I do not think that it would be wrong to exclude them, because it will be imperative for all the doctors to believe in the plan and be willing, in its formation and early existence to cooperate to the fullest, even to the point of making personal sacrifices at times. If after seeing that the plan will work, they reconsider and want to come in, then by all means welcome them.

The scope of this plan will determine the cost to the insured. It may consist first, of hospitalization in ward beds, or hospitalization in private rooms or, second, the above plus fees to doctors when hospitalized—and third all hospital and professional fees with or without exceptions. I think that the plan should be of such scope as to take in all hospital and professional care, with certain exceptions. Hospitalization under this plan should be confined to admission to wards only, but with the provision that if the individual wanted to pay out of his own pocket the difference between the ward rate and private room, he be allowed to do so. Of course, a patient should not be admitted except on the recommendation of a reputable physician. As to general medicine and surgical care I think venereal diseases should be excepted unless complications bring about the indications for a major surgical operation. For nine months after insurance coverage, obstetrics should be excepted. A member and his dependents should be entitled to hospital and professional care not to exceed a given maximum amount in any one year. Rules and regulations protecting the hospital and profession against imposition by the psycho-neurotics must be instituted. Of course, care of insane patients must be excepted, as well as hospitalization of all contagious diseases. A general exception should be made of all conditions that

patients had at the time of, or prior to, joining the group.

In counties where industries are present, it will be a simple matter to interest industry and, with that group, make a sufficient beginning. In other counties, however, where there is no industry, the county society and the local hospital will have to cooperate, making a small beginning but adding to the small group as rapidly as possible. In a county where a sufficient number cannot be gotten together in a group, then it would be advisable to unite with an adjoining county. If health insurance is successfully put into effect, it will without question lower the number of indigent patients to be cared for thereby lowering taxes.

The present generation of the medical profession, from a scientific stand point has a wonderful past to uphold, this wonderful past made

possible by those periods of medicine, which had no outside domination. I am not worried about the future of scientific medicine, if the present generation of doctors will recognize their duty as to present day medical economics and perform it.

It is high time we heed the following statement, made about one year ago by President Roosevelt. "The Country needs and, unless I mistake its temper, the Country demands bold, persistent experimentation. It is common sense to take a method and try it; if it fails, admit it frankly and try another. But above all, try something."

While the above quotation strongly suggests that we have boldness in our thinking, I am sure that the President did not mean that we should not have some thinking in our boldness.

Diagnosis and Surgical Treatment of Malignant Lesions of the Large Bowel

By Fred W. Rankin, M.D., of Lexington, Kentucky

Organic lesions of the large bowel owe their increasing accuracy of diagnosis to the improved technique developed by the radiologists within the past 10 years. It is true that a better understanding of the earlier symptoms causing patients with colonic lesions to seek advice must be reckoned as helpful to this group, albeit one must admit that the majority of these cases are seen at a woefully late stage. However, coupled with better diagnosis has come a standardization of preoperative and postoperative care and individualization of cases by the selection of proper operative maneuvers for each case rather than selection of cases for operation, the result of which has been the reduction of mortality without contracting the scope of operability. Diagnostic efficiency in large bowel lesions, rendered by the radiologists now parallels that of lesions of the upper gastrointestinal tract.

There are two essentials in the diagnosis of colonic disease which the radiologist justly de-

mands—first, an adequately cleansed bowel into which the opaque media is introduced, and second, the cooperation of the patient and his ability to retain the enema under palpable manipulation necessary for fluoroscopy.

A radiologically controlled opaque enema under accurate visualization is the ideal method of locating a filling defect due to an organic lesion. I insist upon emphasizing the necessity of employing the opaque clyster rather than oral administration. Not only does it give an infinitely more correct interpretation of the lesion under question, but it avoids the very important complication of intestinal obstruction. The production of intestinal obstruction by the oral administration of heavy media is not a theoretical consideration, but an actual fact which has been observed many, many times. In a stenosing bowel to administer a thick mixture of barium which becomes more solid as it remains in the bowel until it finally arrives at the carcinoma and being unable to pass, produces complete stenosis, is I think, an indefensible situation. In addition to the danger of producing obstruction, the information gained from oral administration of barium in so far as the interpretation of colonic lesions is concerned is practically valueless. There is no comparison in the accuracy of diagnosis between the two methods. Given a clean bowel properly filled by a modification and elaboration

*Read before the South Carolina Medical Association, Charleston, S. C., May 2, 1934.

of Fischer's technique, the topography of carcinoma may be depicted in minute detail and its differentiation from other lesions, and accurate localization obtained.

There are certain difficulties which one must bear in mind in the radiological examination of the large bowel, especially in the sigmoid where it may be inaccessibly deep in the pelvis or fixed by some process or complicated by some anomalous complication of its coils. The most common error, however, of the roentgenologist is due to a failure to obtain adequate exposure of the involved portion and consequently patience and diligence must be employed on his part together with the cooperation of the patient in order to elicit the best possible results from this type of examination.

The characteristic filling defect or deformity of carcinoma has certain pathognomonic features which make the diagnosis accurate albeit they differ in the two halves of the colon. This filling defect may be annular, polypoid, or obstructing and attended with some degree of spasm, but in each case characterized by rough contours of its margin and canalization of the bowel lumen while at the same time it is associated with a palpable mass. By roentgenological examination one will be able to distinguish malignant right colonic lesions from hyperplastic tuberculosis, actinomycosis, and chronic retro-cecal appendicitis, and cancers of the left colon from diverticulitis, localized ulcers, colitis, syphilis, and actinomycosis. By the same means one will likewise be able to determine whether or not a given mass is extrinsic to the bowel, yet causes some deformity by the presence or absence of the characteristic features, particularly the integrity of the contour of the mucous membrane of the bowel. The radiological examination then, while the final and conclusive factor in arriving at the identity of organic colonic lesions must necessarily be supplementary to a careful anamnesis and general physical examination as well as a sound knowledge of the usual symptoms of the disease. The physiological process and type of pathology which occurs in different segments of the large bowel are so intimately associated in the chain of symptoms produced by carcinoma that for diagnostic purposes the colon must be considered as a dual organ. By this I mean that dif-

ferent types of growths occur in its right and left halves and consequently different types of symptoms are produced. The right half of the colon representing as it does the functioning and absorbing segment of the bowel, harbors growths which are evidenced by physiological disturbances whereas its fellow of the opposite side being a semi-elastic storehouse and usually host to encircling growths, manifests organic lesions by obstructive phenomena. There are 4 groups of symptoms which one finds most often produced by carcinomas of the large bowel, 3 of which call attention to right colonic growths and the fourth to carcinomas in the left colon.

The symptoms produced by right colonic cancers divide themselves uniformly into three groups: first, dyspeptic; second, anemic; and third, accidentally discovered. Those in the left colon almost invariably produce symptoms of obstruction in one of its three phases—acute, sub-acute, or chronic. The first group of right colonic cancers, namely, the dyspeptic group represents in many of its cases, failure to differentiate between so-called chronic appendicitis and intestinal indigestion—whatever that may be—and a right colonic cancer. Unfortunately 10 per cent of these cases are explored under the diagnosis of chronic cholecystitis or appendicitis, yet without the radiological evidences which would exclude or verify a colonic lesion. The symptoms are mild, indefinite, and there is a certain amount of gaseous indigestion and a period of bowel irregularity accompanied by slight tenderness on pressure, which on cursory examination is deemed sufficient evidence to explore the abdomen,—then only is an accurate knowledge of the underlying pathology arrived at. These unnecessary explorations could be, in the vast majority of instances, avoided were the clinicians "colon minded" sufficiently to demand a roentgenological examination. I think that it is a definite conclusion that such errors in diagnosis might often be avoided if one remembers that there are no pathognomonic early symptoms of colonic disease in the majority of cases excepting only irregularity and change in bowel habit.

In the left colon one suspects organic lesions when blood appears in the stool or on the stool, but in growths of the right colon red blood is

rarely mixed with the stool and the finding of occult blood on chemical examination is of small diagnostic value. In the second group, namely the anemic variety, there is small reason for diagnostic error. I believe that in every secondary anemic one should be strongly suspicious of a right colonic cancer until it is excluded, and I would add that in addition to this the diagnosis of primary anemia which is not clear cut should call for an elimination of cancer of the colon by radiological methods. The profound anemia which in a definite group of cases reduces the concentration of the hemoglobin and the number of erythrocytes to very low percentages frequently simulates pernicious anemia on hasty examination, yet the differentiation is easily made by routine blood studies and careful colon X-rays.

The accidentally discovered tumors are found in their early stages, the growths are small, most often the glands are not involved, and consequently the prognosis following successful extirpation is most satisfactory.

The fourth group comprises the obstructive type of phenomena common to cancers of the left half of the colon beyond the middle of its transverse segment and in which the symptoms may vary from acute to chronic; some degree of obstruction is present in some 70 to 80 per cent of the left colons. These obstructive symptoms are produced in the left colon because of the type of bowel and the type of pathology found. Anatomically, the bowel is smaller in caliber than the right half and not very elastic. Pathologically, lesions in this region are inclined to be encircling, signet-ring adenocarcinomas.

When the content of the bowel is formed any reduction in the lumen is likely to produce some kind of symptomatology. Strangely enough, as stenosis advances the patient is often able to put his hand over the exact spot where, to use his own words, "the gasses stop." This long recognized chronic sign handed down to us by the older surgeons was expressed most satisfactorily by Rutherford Morrison who said, "In any case in which a patient has passed middle life and who has progressive constipation unrelieved except by cathartics, malignancy should be strongly suspected." One wonders if the importance of blood in the stools or on

the stools as a symptom of a cancer of the large bowel has been properly interpreted. Its significance, I feel, in the majority of carcinomas of the gastrointestinal tract is largely an invitation to urge careful and thorough investigation.

Bright red blood in the stool or on the stool practically always comes from lesions distal to the splenic flexure and is more often due to hemorrhoids or a benign lesion than to cancers. This latter fact unquestionably has been fatal to many individuals who did not have benign lesions but malignancies, and should urge one to always consider blood on the stool as coming from a cancer until it is proven otherwise. Occult blood is of little value diagnostically unless it occurs in repeated tests after proper diet has been instituted, and it has been my experience that it is due rather to some condition of the small bowel if it persists in these tests, than to growths of the colon.

Treatment

The treatment of cancer of the large bowel is surgical extirpation, usually in multiple operations. The administration of therapeutic doses of radium and roentgen-ray has in the experience of practically all observers proven futile from the stand-point of cure. That this would be experienced because of the inaccessibility of the growths as well as the difficulty of proper application, seems obvious. It is a well recognized fact now that seldom is operative interference demanded in a case of cancer of the colon as an emergency measure. There is a small group of cases which are presented to the surgeon as acute intestinal obstructions which require immediate decompression, but with this exception, all organic lesions of the large bowel, particularly the malignant ones may be relegated to the group of chronic ailments in which it is possible to institute a sequence of preoperative procedures which have advantageously influenced the operative mortality.

The preoperative measures aim first, at reduction of intra-colonic pressure and cleansing of the bowel of its content, and second, at rehabilitation of the patient. In addition to these two objectives, the introduction routinely of an intra-peritoneal vaccine of colon bacilli and streptococci has, we feel, increased the patient's resistance to infective organisms which may be loosened by the very act of mobilization of the

bowel. It should be remembered that these patients in the majority of instances have been host to their growths for a period of 9 to 12 months and therefore on admission to the hospital are in a state of lowered resistance, which is often accompanied by a severe degree of toxemia and dehydration. By the institution of a diet high in caloric value and low in residue, coupled with a large intake of fluids and occasional blood transfusions, one is able to raise the threshold of safety to the majority of patients of this group.

To reduce intra-colonic pressure, occasional rectal irrigations of warm saline supplemented by mild purgation with a fluid extract of senna are used. Such measures tend not only to lower the intra-colonic tension, but to reduce inflammatory reaction in and around the growths in the colon. The vaccine of which I speak is a mixed vaccine of streptococci and colon bacilli derived from patients who have succumbed to peritonitis and is given intraperitoneally. In 1927 and 1928 this measure was adopted by Bergen and me and after its employment in a large series of cases we have become convinced of its desirability.

The employment of these preoperative measures and at the same time the selection of the optimal time for operation, together with the choice of a suitable anesthetic, and the selection of the appropriate type of operation for the individual case, has convinced me that we are thus able to increase rather than reduce the horizon of operability and thus do a radical surgical procedure in a larger group of cases with an expectation of more satisfactory end-results.

It has been my experience that it is advantageous to differentiate between surgical procedures for growths of the right and the left halves of the colon. As the operation of choice for carcinoma of the right half of the colon, I have chosen aseptic ileocolostomy between the terminal portion of the ileum and transverse colon, followed by resection of the colon at the same stage or subsequently. The best method of by-passing the fecal current is, I believe, the end-to-side anastomosis. One should not be influenced by personal or economic considerations as to whether the operation should be completed in one stage, but should decide this point

by the circumstances of the individual case. In some cases where the patient is sturdy and with high resistance, an operation in one stage is possible without too great a risk, but it seems to me that such a formidable procedure could not safely be made applicable to more than one-half of all the cases. Where one attacks carcinoma of the left half of the colon, one may attempt either of two eminently satisfactory procedures: (1) preliminary surgical drainage followed by resection and anastomosis at the same time or at a subsequent stage, and (2) obstructive resection. If adequate drainage measures are instituted, later resection and anastomosis of the growth can be performed more safely, particularly where there has been obstruction producing edema and distension. When the bowel is flat at exploration it has been my custom to employ the obstructive type of resection embodying the desirable features of the Mikulicz operation plus a radical dissection of the gland-bearing tissues in the vicinity of the growth. This practice has been rewarded by a lowered mortality rate. The original Mikulicz-Burns procedure carried a high mortality rate and was followed by recurrence of the malignant growth in the abdominal wall in 12 per cent of the cases because it implanted carcinoma cells in a cut wound surface and did not provide for wide resection of the lymphatic tributaries to the growth.

For cancers of the left half of the colon not producing obstruction or in which the obstruction has been relieved by preliminary decompressive measures, I have employed the obstructive resection in a large series of cases with a mortality rate of 5 per cent. To carry out this obstructive resection, the affected segment of the colon is mobilized down to the middle of the sigmoid by dividing the bloodless outer leaf of the peritoneum and rotating the bowel mesially, at the same time wiping the glands and the fat of the mesentery inward. The vessels are ligated close to the root of the mesentery and as large a block of tissue as is feasible, including the carcinomatous bowel, is removed.

The clamp on the cut ends of the bowel is left closed for at least 48 hours, and preferably for 60 to 72 hours. Then the proximal blade is opened to permit escape of gas. The clamp is allowed to remain on the distal portion until

it falls off as a result of pressure necrosis, usually about the seventh or eighth day. Two blind gun barrels remain, much as in the original Mikulicz operation. When the septum between them is severed by an enterotome, spontaneous healing occurs in most cases, provided that the mucosal surface is not attached to the skin and everted, and provided sufficient time is allowed before an attempt is made to close the colonic stoma. Let me emphasize the fact that this procedure is not applicable in the face of continued obstruction by the growth, but in such an instance preliminary decompression is imperative.

One must not be bound to any one procedure in the selection of an operation for malignant growths in either segment of the colon, but must be guided by the circumstances of the individual case. However, strict adherence to these fundamental principles has been of unquestionable advantage in reduction of mortality and in forwarding a more satisfactory plan of procedure for the future.

It seems to me that one must regard operability as the main key to successful extirpation of malignant lesions. Also, that one should consider how many persons out of a hundred will be benefited either by operative measures or a curative interference over a term of years

rather than how many brilliant technical achievements may be completed with a low casualty list. Since the prognosis in dealing with malignancy of the large bowel and rectum is a favorable one, it seems only reasonable that the ideal toward which we should strive be the extension of this horizon without increasing the percentage of deaths in hospitals.

A study of any statistical data which are available indicated that more patients with carcinoma of the large bowel and rectum are found to survive over a given period of years than those with carcinoma of any other portion of the gastrointestinal tract. Among the various reasons for this circumstance is the fact that the growth remains local for a long time in a high percentage of cases before distant implantation takes place. This condition may be explained by the scanty lymphatic drainage of some segments as well as the tendency of many of these carcinomas to be of low or only moderate intensity, as graded by Broders' index of malignancy. Because of this fortunate circumstance, the attitude of members of the profession should be an optimistic one toward the colonic malignancy and one of encouragement to undertake more radical attack in properly selected cases.

PROCEEDINGS OF THE REGULAR MEETING
OF THE MEDICAL SOCIETY OF SOUTH
CAROLINA, WHICH WAS HELD AT ROPER
HOSPITAL, TUESDAY EVENING, APRIL 10th,
1934, AT 8:30 O'CLOCK

The meeting was called to order by the President, Dr. Francis B. Johnson.

Present: Doctors: A. E. Baker, Jr.; Ball; Banov; Beach; Beckman; Branford; Buist; Burn; Cain; Cannon; Cathcart; Chamberlain; Deas; de Saussure; Gantt; Jenkins; F. B. Johnson; LaRoche; McCrady; Maguire; Mood; Moore; O'Driscoll; Prioleau; R. B. Rhett; W. M. Rhett; W. P. Rhett; Rudisill; Rutledge; Scott; W. A. Smith; W. H. Speissegger; Steinberg; J. F. Townsend; Waring; Whaley; I. R. Wilson; I. R. Wilson, Jr.; R. Wilson; R. Wilson, Jr.; Zerbst; Siegling. (42).

Guests: Dr. E. N. Reed and Dr. W. S. Sargent, of the U. S. Navy; Dr. R. E. Remington, Dr. J. H. Hoke and Dr. Levine, of the Medical College.

The minutes of the regular meeting of March 27th and of the special meeting of April 6th were read and confirmed.

The Secretary presented the application for reinstatement to membership of Dr. B. R. Baker. It was

moved, seconded and carried that this application take the usual course, and be referred to the Board of Censors.

Under Special Case Reports, Dr. J. J. LaRoche reported a case of Purpura, following Rubella. This was discussed by Doctors R. Wilson, Cathcart, Beach, J. F. Townsend, Pearlstine and F. B. Johnson, Dr. LaRoche closing.

Dr. J. I. Waring exhibited cases illustrating the value of the Patch Tuberculin Test.

Dr. M. W. Beach read a short paper on the Control of Whooping Cough. This was discussed by Doctors W. M. Rhett, Smith, Sughrue, Waring, Whaley and Mood, Dr. Beach closing.

Dr. W. M. Rhett read a paper on the Control of Measles. This was discussed by Doctors Banov and Smith, Dr. Rhett closing.

Dr. Roe E. Remington read an interesting paper on Experimental Pellagra. This was discussed by Doctors LaRoche, Levine and Burn, Dr. Remington closing.

There being no further business, the meeting adjourned.

W. Atmar Smith, M.D.,
Secretary.

SURGERY

WM. H. PRIOLEAU, M.D., F.A.C.S., CHARLESTON, S. C.

"CLOSURE OF THE ABDOMEN WITH THROUGH AND THROUGH SILVER WIRE SUTURES"

In a recent article (Annals of Surgery XCVIII:894 Nov. 1933) Dr. Reid and his associates at the Cincinnati General Hospital have advocated the use of silver wire in closure of abdominal incisions in certain selected cases, in particular where there is, or is likely to be a bad infection, or undue strain upon the suture line. While they make no claim as to the originality of this procedure, they probably have used it in a wider field than have others. In cases where the conventional closure in layers has been inadequate, they find the one layer silver wire closure very satisfactory. With it they have had no post-operative evisceration, which can not be said for the usual type of closure.

Post-operative evisceration is to be feared in gunshot and stab wounds of the abdomen, ruptured ulcers, and peritonitis from other causes; where closure is difficult on account of distended intestines or a light anesthesia; where there is apt to be undue post-operative strain from persistent coughing, retching and hic-coughing, and an active delirium; also in emaciated and cachectic individuals where healing is slow. They report a series of 334 such cases over a period of eleven years in which closure with silver wire was used.

The procedure consists in closing the incision with interrupted silver wire sutures placed at intervals of about one inch. The wire pierces the full thickness of the abdominal wall on each side of incision—from skin to peritoneum inclusive on one side and peritoneum to

skin on the other and is fastened by twisting the ends on one side of the mid-line. No other suture is used except possibly a little dermal to approximate better the skin edges. As a rule, regardless of infection and cutting, these sutures are not removed before two or three weeks, or longer.

The result is a firm closure of the incision. While the sutures may cut to some extent they are not likely to tear completely out. They can not be destroyed by infection as is so often the case with catgut. Should a fascial slough occur it would probably not seriously affect the strength of the suture line. Due to the spacing of the suture the incision is better drained than in a continuous closure. Where the closure has to be made under considerable tension, the posterior layer with the peritoneum is probably better approximated than in the catgut closure due to its tearing through. Of great importance in very sick patients this closure requires very little time.

It has some disadvantages. There is more pain in the region of the incision. Invariably there is some cutting of the skin with a varying amount of infection around the sutures. This leaves a more unsightly scar but otherwise has not proven of serious significance.

The results have been very satisfactory. There has been no case of post-operative evisceration. In two cases a loop of intestine was visible between two sutures, which however were not placed close enough together. Regarding the late results, only thirty-one patients could be obtained for examination sufficiently long after the operation. Of these three had a hernia. The inference is that this is a small proportion for this type of cases.

- - SOCIETY REPORTS - -

PROCEEDINGS OF THE SPECIAL MEETING OF THE MEDICAL SOCIETY OF SOUTH CAROLINA, WHICH WAS HELD AT ROPER HOSPITAL, FRIDAY EVENING, APRIL 6, 1934, AT 8:30 O'CLOCK

The meeting was called to order by the President, Dr. Francis B. Johnson.

Present:

Doctors: A. E. Baker; A. E. Baker, Jr.; Ball; Banov; Beach; Boette; Bowers; Branford; Burn; Cain; Cannon; Chamberlain; Deas; de Saussure; Finger; Gantt; Heidt; Hope; Jenkins; F. B. Johnson; Lynch; McCrady; McLunes; Maguire; Martin; Mazyck; O'Driscoll; Pearlstine; Peeples; W. J. Ravenel; Rhame; W. P. Rhett; Richards; Rudisill; Rutledge; Sanders; Scharlock; Scott; W. A. Smith; C. A. Speissegger; W. H. Speissegger; Steinberg; Sughrue; Taft; E. W. Townsend; Waring; Whaley; I. R. Wilson; R. Wilson; R. Wilson, Jr.; Zerbst; Seigling.

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Guests: Dr. Robert Drane, of Savannah; Dr. Percy Hay, of Florence; Dr. Floyd Rogers, of Columbia; Dr. T. A. Pitts, of Columbia; Dr. W. S. Judy, of Greenville; Dr. Malcolm Mostealla, of Columbia; Dr. J. N. Walsh, of Moncks Corner; Dr. H. H. McGee, of Savannah; Dr. Hugh Smith, of Greenville; Dr. Beaver, of New Bedford, Massachusetts; Dr. H. M. Law, of New York City; Dr. Ferris, Dr. Lassek, Dr. R. E. Remington and Dr. J. H. Hoke, of the Medical College.

The president stated that the special meeting of the Society had been called in order to hear an address by Dr. B. R. Kirklin, of the Mayo Clinic. He then introduced the out-of-town guests to the Society and extended them the privilege of the floor.

The President requested Dr. R. B. Taft to introduce the speaker of the evening. Dr. Taft introduced Dr. Kirklin in an appropriate manner.

Dr. Kirklin, after expressing his pleasure at the honor of having been invited to address the Society, delivered an able address on "Puzzling Diagnostic Problems: their Solution by Roentgenologic Examination of the Digestive Tract." This address was illustrated by lantern slides. At its conclusion, the President stated that the guest speaker had requested discussion of his paper. The following asked questions of Dr. Kirklin: Doctors W. A. Smith, Maguire, Seaver, Floyd Rogers, and Judy, Dr. Kirklin, after replying, closing the discussion.

There being no further business, the meeting adjourned

W. Atmar Smith, M. D.
Secretary.

PROCEEDINGS OF THE REGULAR MEETING OF THE MEDICAL SOCIETY OF SOUTH CAROLINA, WHICH WAS HELD AT ROPER HOSPITAL, TUESDAY EVENING, APRIL 24th, 1934, AT 8:30 O'CLOCK

The meeting was called to order by the President, Dr. Francis B. Johnson.

Present: Doctors: Banov; Beach; Beckman; Bowers; Branford; A. J. Buist, Jr.; Burn; Chamberlain; Deas; de Saussure; Gantt; Heidt; Jenkins; Johnson; Lynch; McCrady; Maguire; Martin; Mazyck; F. L. Parker; Pearlstine; Peeples; W. H. Price; J. J. Ravenel; W. J. Ravenel; W. P. Rhett; Sams; Scharlock; W. A. Smith; C. A. Speissegger; W. H. Speissegger; Steinberg; Sughrue; Taft; E. W. Townsend; Van de Erve; Waring; Whaley; I. R. Wilson; I. R. Wilson, Jr.; Zerbst; Seigling. (42).

Guests: Dr. Eric M. Matsner, of the American Birth Control League, New York; Dr. Lassek, Dr. Hoke and Dr. Levine, of the Medical College, Dr. Felder, of Orangeburg.

The minutes of the meeting of April 10th were read and confirmed.

Under Reports of Officers and Committees, Dr. D. L. Maguire, Chairman of the Committee on Arrangements for the meeting of the South Carolina Medical Association, submitted a report in which he stated that the plans for the annual meeting of the association were completed. This report was received as information.

The Secretary read the following letter, directed to Dr. E. F. Parker, Chairman of the Committee on Arrangements for the meeting of the American L. R. and O. Society in Charleston:

Greenville, S. C.

April 9, 1934

Dr. Edward F. Parker
Charleston, S. C.

My dear Dr. Parker:

As President of the American L. R. and O. Society, I want to take this occasion to offer the sincerest thanks and appreciation of the entire Society to you as Chairman and to your various committees and managers of local transportation, etc. The whole thing was a wonderful exhibition of co-operative effort and loyal attachment to the city of Charleston in putting her best foot foremost. I can assure you that the sentiment of the Society is unanimous that this meeting in every respect has far transcended any meeting the Society ever held in its forty years of existence, and this sentiment has been expressed by the oldest numbers. We shall never forget the service you and your committees have rendered us.

With kind personal regards for your health and happiness, I am,

Sincerely yours,

J. W. Jervy, M.D., President.

This was received as information.

The Scientific Program was called at 9:00 P. M.

The President introduced to the Society the guest of the evening, Dr. Eric M. Matsner, Medical Director of the American Birth Control League, New York.

Dr. Matsner, after expressing his pleasure and appreciation at being asked to address the Society, spoke on the subject of "Contraception: Its Role in Public Health."

At the conclusion of this able address, the President announced to the Society the death of one of its valued members, Dr. William Henry Johnson, which occurred on April 14th. He then appointed the following committee to draw up resolutions of respect for Dr. Johnson: Dr. Robert S. Cathcart, Dr. Robert Wilson, and Dr. Edward Rutledge.

There being no further business, the meeting adjourned.

W. Atmar Smith, Secretary.

RIDGE MEDICAL SOCIETY MEETS

The Ridge Medical Society and The Ladies Auxiliary met the sixteenth of April in the home of Dr. and Mrs. J. D. Waters at seven o'clock, where a bountiful repast was served by them and their associates Dr. and Mrs. O. P. Wise also of Saluda.

Short after dinner speeches were made by Drs. Durham, Bozard, Bunch, Asbill, T. A. Pitts and Walden and Dr. and Mrs. A. R. Nicholson and Mrs. Madden.

A rising vote of thanks was given our worthy hosts and hostesses.

After the reading of the minutes, etc. and the extending of the privileges of the meeting to the visitors several interesting clinical cases were reported and discussed among them were Drs. Waters and Timmerman reported a probable case of tubercular peritonitis which after a long time has shown considerable improvement.

* Dr. Wise reported a case of sexual neuritis which became so severe that the young man was sent to the State Hospital.

Dr. Ballinger reported a case of a completely severed ear which was replaced after more than an

hour after the accident and which healed almost perfectly.

Dr. Nicholson reported a case in which the end of a nose was almost severed and which healed and looked better than before the accident.

Dr. Wise reported a case in which the big toe was severed and which was replaced by a physician who was a bit happy but the severed end was sutured bottom side up. This caused much merriment.

Dr. Walden reported an accident in a man which lacerated the lower abdomen and the prolapsed skin made it appear that the sexual organs had been severed.

After a stormy period he recovered. The sexual organs weren't injured.

Dr. Asbill told of a man who while drinking became offended with his wife because of her frigidity and took a chisel and severed a portion of his penis.

Dr. Bozard reported a case of priapism which was relieved by lateral incisions in the penis and the removal of some blood clots, etc.

Dr. Durham said that he would like to contact Dr. Bozard's case.

Dr. T. A. Pitts told of having cooperated with Dr. Wise in settling some trouble between a prominent bachelor and a female and the description of his unmistakable evidence of chastity.

Dr. W. P. Timmerman told of having treated a young man whose left testicle had been shot away with a shotgun.

He also told of a man whose skin had been torn from his penis and which after successful skin grafting was almost normal.

Dr. A. A. Walden of North, Augusta read a timely and instructive address on headache which was ably and freely discussed by several and commended by all.

He emphasized relieving the pain when first called and then ascertaining the cause and removing it if possible before giving other treatment.

Dr. Pitts called attention to the lack of proper examinations and gave a vivid illustration of a faulty diagnosis.

The following named officers were chosen for next year: Dr. E. C. Ridgell, President; Dr. W. W. King, Vice President; Dr. F. G. Asbill, Vice President; Dr. W. P. Timmerman, Sec.-Treas.

The President was authorized to appoint all committees unless otherwise provided.

The officers were made the program committee, etc.

W. P. Timmerman, Secretary.

BOOK REVIEWS

HYPERTENSION and NEPHRITIS. By Arthur M. Fishberg, M.D., Asso. Physician to Beth Israel Hospital, New York City. Third edition. Cloth Price \$6.50. Lea and Febiger, Phila., 1934.

The fact that this book has gone through three editions in a short period of time indicates that the general practitioner has found it to be a useful work. The additions to and alterations of this third edition should increase its well-earned popularity. It is now the most complete and authoritative work on the subject in the English language.

The author, by virtue of his wide experience in handling the nephritic and hypertensive patient, is able to maintain the clinical viewpoint throughout. The chapters on symptomatology and diagnosis simplify old signs and furnish new landmarks by which the various types of nephritis and hypertension may be identified. The treatment of these diseases is unsatisfactory, at best, and certainly the patient is justified in expecting the latest and most effective treatment from the hands of his doctor. Such information can be obtained with a minimum of effort in this book. The most useful tests of the functional capacity of the kidneys are presented with the simpler ones, which are applicable to the average practice, being given in some detail. The physiological variations of the blood pressure and the variability of the blood pressure in many persons with hypertension are fully discussed. The substitution of the term "*normal range*" for "*normal level*" is to be commended. This is a book that the busy practitioner should keep on his desk for frequent reference, as a large percentage of his patients will present one or many of the various symptoms of renal diseases or of hypertension.

E. A. H., Jr.

MEDICAL CLINICS OF NORTH AMERICA: (Issued serially, one number every other month.) Volume 17, Number 5. (New York Number—March 1934). Octavo of 324 pages with 32 illustrations. Per Clinic Year July 1933 to May 1934, Paper, \$12.00; Cloth, \$16.00 net. Philadelphia and London: W. B. Saunders Company, 1934.

One of the most practical papers in this volume

is a write-up of a clinic before the Utah State Medical Society at Salt Lake, September 14, 1933, by Dr. Harlow Brooks of New York City. Three cardiac cases were presented and Dr. Brooks made learned comments on heart disease in general while discussing the three cases.

Some Problems Encountered in the Management of Patients with Impaired Hearing. A Contribution by Dr. Wendell C. Philips and Annetta W. Peck. Much may be done to orientate the life of the hard of hearing patients as brought out by these authors. The general practitioner who is apt to see these cases first may profit by the organized efforts now being made to study these cases particularly with reference to their vocational requirements. If such patients are guided in the proper direction early in the course of their malady, much may be done to make their lives happier and more successful.

SURGICAL CLINICS OF NORTH AMERICA: (Issued serially, one number every other month.) Volume 14, Number 2. (New York Number—April 1934). 293 pages with 71 illustrations. Per Clinic Year (February 1934 to December 1934.) Paper, \$12.00; Cloth, \$16.00 net. Philadelphia and London: W. B. Saunders Company, 1934.

One of the interesting contributions in this volume is that on Ludwig's Angina. Advantages of Submaxillary Resection, by Ramsdell. A brief history of the disease is presented and excellent anatomical illustrations together with cuts showing the various procedures in operation. It appears that only 166 cases have been reported in the literature in which incision and drainage was the operation of choice, the mortality being 40 per cent, about the same as reported by Ludwig when the treatment was wet dressings and hot applications. This author recommends early operation with excision of the sub-maxillary gland and reports six cases with one hundred per cent recovery.

There are many interesting subjects discussed in this number of the Surgical Clinics as would be expected from a great medical center like New York City.

THE PROBLEM OF HUMAN STERILIZATION

Alarm over the apparent increase in crime and the financial burden of institutionalization of social enemies and incompetents has renewed interest in ways and means of solving this problem. Human sterilization, at present receiving its test in a mass effort in Germany (1), is perhaps the principal method being studied at the present time. In the question the medical profession is directly interested as the instrument for carrying out any such program, and indirectly as an important division of society in deciding if, how and why any large scale attempts at human sterilization should be attempted.

As to the importance of the burden of crime, insanity and feeble-mindedness to society there can be but one answer. In the United States (2) the number of patients with mental disease resident in state hospitals alone has shown a marked increase. In 1880 there were 31,973, in 1910 there were 159,096, and in 1929 there were 272,527 patients with mental disease confined in state hospitals. Further analysis of these statistics is necessary. The ratio of total patients with mental disease per hundred thousand of the general population increased from 63.7 in 1880 to 225.9 in 1929. Again analysis is insufficient; is the increase real or due to a higher percentage of institutional confinement in recent years? What proportion of these patients are suffering with "inherited" mental disease? Viewing the problem from a slightly different angle brings out further matter for consideration (3). "Careful studies indicate there are six millions in the United States who have been, are now, or at some future time will be legally committed as insane to state institutions. . . . There are six million additional cases who are not mentally diseased, but who are so deficient in intellect with an endowment in this respect that is more than 50 per cent below average that they are often described as feeble-minded." The financial cost is difficult to analyze in all its direct and indirect ways. Suffice it to state by way of illustration that the per capita cost in 1928 for prisons was \$320.89, for hospitals \$308.85, and for institutions for the feeble-minded and the epileptic \$300.67 (4). The facts and figures of the growing burden of social misfits and incompetents could be multiplied. Certainly there is no doubt of the social and economic problem.

Sterilization of the unfit as a means of gradually reducing the toll exacted from society is not of recent origin. It is based on the essential concept that certain traits which are recognized as unsocial are perpetuated in the race by direct propagation. It is on this concept that the whole problem hinges. When viewed superficially with only cursory examination of the eugenic evidence, few socially minded individuals can resist the rosy outlook of banishing incompetence in a few years by the simple expedient of preventing the conception of such individuals by sterilization of the potential parents. The laws governing human heredity, especially of "mental traits," are unfortunately not known.

Too often a mental trait is confounded with a mendelian unit character. Too often are uncritical histories of families such as the Jukes, the Kallikaks and the Edwardses the basis for unsubstantiated far-reaching eugenic conclusions. In feeble-mindedness, schizophrenia, circular insanity, epilepsy, Huntington's chorea and hereditary blindness and deafness the proponents of eugenic sterilization find evidence of inheritance which they believe amenable to reduction by this means. Other authorities, however (e. g., Tredgold (5)), believe that mental deficiency is not due to absence in the ancestral germ cells of certain components but to incomplete development resulting from diminished capacity of growth of the seed. Tredgold finds, moreover, that the proportion of defectives who are the offspring of defective parents is exceedingly small. It follows that, if every defective in existence a generation ago had been sterilized, the number of defectives today would not be appreciably diminished. Hence if this principle should be properly applied it would be necessary to sterilize heterozygous individuals who are latent carriers of mental ailments.

From the evidence thus briefly considered it would appear that society is faced with an increasing (so far) load of mental and physical incompetents. Whether sterilization of large numbers of these incompetents would improve the position of society is dependent on one of two factors as yet undetermined. If it becomes possible to gage the laws of human inheritance with mathematical certainty, either human sterilization or "positive eugenics" (increased breeding of desirable stocks) would seem desirable. If, on the other hand, without waiting for more definite information of inherited transmission, mass sterilization of defectives is carried out, with subsequent definite decrease in the number of defectives, its value also would be proved. Such a program could not, however, be subject to critical analytic conclusions short of several generations.—*Jour. A. M. A.*, May 12, 1934.

1. Human Sterilization in Germany and the United States, editorial, *J. A. M. A.* 102:1501 (May 5) 1934.

2. Landman, J. M.: Human Sterilization, New York, Macmillan Company, 1932, pp. 16-17.

3. Randall, H. E.: The Operation of Sterilization, *J. Michigan M. Soc.* 33:74 (Feb.) 1934.

4. Landman, Human Sterilization, p. 39.

5. The Sterilization of Mental Defectives, London Letter, *J. A. M. A.* 87:1404 (Oct. 23) 1926. Sterilization of Defectives (Departmental Committee's Report): *Brit. M. J.* 1:161 (Jan. 27) 1934.

CIRCULATORY STASIS OF INTRAPERITONEAL ORIGIN: CLINICAL AND SURGICAL ASPECTS OF THE PICK SYNDROME

Claude S. Beck and E. H. Cushing, Cleveland (*Journal A. M. A.*, May 12, 1934), state that in referring to the various disorders of the pericardium,

one is accustomed to use such terms as pericarditis with effusion, adhesive pericarditis, callous pericarditis, purulent pericarditis, hydropericardium, hemopericardium and pneumopericardium, and that these anatomic conditions, diversified as they are, have a common physiologic relationship. They produce two closely related clinical syndromes. These are the syndromes of acute and chronic intrapericardial pressure. Acute intrapericardial pressure is usually caused by hemorrhage from wounds of the heart or coronary vessels, or from rupture of a weakened myocardium or from an aneurysm. It is sometimes seen with a rapidly progressing suppurative infection. The veins are full of blood. Their walls have not been stretched by chronic pressure and they are not prominent, but the venous pressure is elevated by as much as 15 cm. of water. There has not been sufficient time for ascites, hydrothorax or edema to develop. On the arterial side of the circulation the vasomotor center is doing what it can to maintain an adequate pressure. As the arterial circulation fails, the body cools and the skin becomes moist, cold and pale. The patient at first may go through a period of excitement and anxiety but, as the brain becomes anemic, consciousness is lost. Examination of the precordium shows little. The cardiac sounds are faint and distant or may be inaudible. There is no pulsation of the precordium. The area of cardiopericardial dullness shows little or no perceptible increase. It is unnecessary, and may be unwise, to spend the time taking a roentgenogram if urgent surgical treatment is to be carried out. The syndrome of chronic intrapericardial pressure is a type of circulatory failure that frequently can be cured by operation. It is important that this type of circulatory decompensation be diagnosed correctly so that operative treatment can be carried out in appropriate cases. Its occurrence is rare when compared to that excessively large group of patients suffering from cardiac failure. The operation for the relief of chronic pressure is a task with which the surgeon may be relatively unfamiliar. Few operators acquire experience in operating on the heart. Unlike any other organ in the body, the heart is in constant motion, and the surgeon must establish a new set of reflexes for this operation. This syndrome has been produced experimentally by the in-

troduction of surgical solution of chlorinated soda into the pericardial cavity. The laboratory offers an invaluable opportunity to acquire experience in performing the operation. The authors present nine cases of chronic intrapericardial pressure to show the similarity of the clinical pictures produced by dissimilar pathologic processes. Six of the patients were operated on.

THERAPEUTIC PNEUMOCOCCUS TYPE VIII (COOPER) SERUM

Jesse G. M. Bullowa, New York (*Journal A. M. A.*, May 12, 1934), observed 133 cases of pneumococcal pneumonia due to pneumococcus type VIII, in 122 adults and eleven children. Thirty-seven adult cases were treated with serum; twenty-seven were nonbacteremic and none of the patients died. Among eighty-five cases not treated with serum, seventy patients were nonbacteremic and nine died, a mortality of 12.8 per cent. A factor determining the outcome in pneumococcus pneumonia is invasion of the blood stream. Of the bacteremic cases, ten were treated with serum and two patients died, a mortality of 20 per cent; fifteen were treated without serum and five patients died a mortality of 33 1-3 per cent. In the nonserum cases, three patients died of the seven in whom a single colony occurred on agar or only the broth was positive. Two cases in which the organisms (in broth only) were recovered for the first time in postmortem blood from the heart were counted as nonbacteremic. In the serum series, none of the five cases of slight invasion resulted fatally. Possibly the serum prevented severer invasion of the blood stream. Among the more heavily invaded group that received no serum, there were eight cases and five deaths; in one of these cases, meningitis due to pneumococcus type III supervened three months after the pneumonia, which had been complicated with empyema. In the serum group, two of the four patients died. One had meningitis as well as pneumonia on admission; the other showed a marked reduction of the bacteremia after the serum, but the treatment was discontinued because the stock of serum was exhausted. The usual duration of the cases not treated with serum was from eight to nine days; most of the cases treated with serum terminated by the sixth day.

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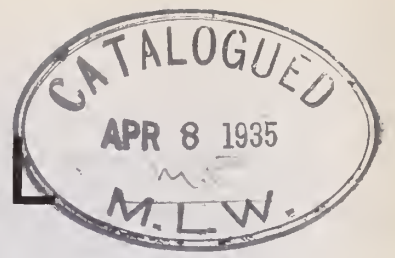
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THE JOURNAL

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South Carolina Medical Association

VOL. XXX.

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NO. 6

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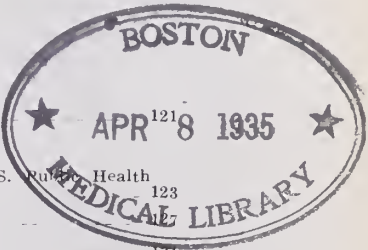
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Loose Stools in Infants

require extra diapering, and inconvenience the mother

Clinically, loose stools are accompanied by a dehydration which, when excessive or long continued, interferes with the baby's normal gain. A long-continued depletion of water is serious, since "the fluid requirements of an infant are tremendous. A normal infant 15 pounds in weight will frequently excrete as much as one litre of urine per day. A negative water balance for more than a very short period is incompatible with life." (Brown and Tisdall)

Moreover, when the condition is superimposed by chance infection, the delicate balance may be seriously upset, since the infant's reserves have already been drawn upon, so that resistance to infection and dangerous forms of diarrhea may be too low for safety. Every physician dreads diarrhea, which Holt and McIntosh call "the commonest ailment of infants in the summer months."

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IF Mr. Culbertson could eavesdrop during a session of the Homeville Heights Bridge Club—well, he might be mildly shocked at some points in the play...

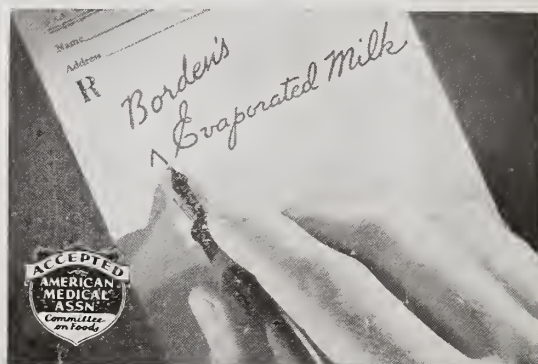
But, Doctor—his feelings would be nothing to yours if *you* could listen in—and hear the light-hearted way those ladies toss medical advice about!

And when the talk turns to infant feeding—how they love to trade their pet prescriptions! For some strange reason, almost everybody enjoys meddling with the feeding instructions a young mother gets from her physician.

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THE JOURNAL

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EDITORIAL

EDITORIAL NOTES

The American Medical Association has come and gone and was a record breaker in many respects. The attendance was beyond the six thousand mark. The scientific programs have never been equalled, and the scientific and commercial exhibits were thronged with eager visitors from early morning until late in the afternoon. The pronouncements of the House of Delegates will be given editorial comment in the next issue, but the unanimity of the House in its program on medical economics was remarkable. We are headed for great progress along this line in the near future both for the benefit of the American people and the medical profession. Cleveland is a great medical center, and the inspiration thus afforded attracted many visitors from that standpoint alone. South Carolina had a very creditable representation there of about twenty-five or thirty.

By a slip of the pen we were in error in last month's issue in saying that the President Elect, Dr. Samuel E. Harmon, graduated from the University of Pennsylvania. Dr. Harmon graduated from the University of Tennessee.

It is an interesting coincidence that President William Egleston is also a graduate of a Tennessee school, the University of Nashville.

This is a year when a large number of candidates offer for governor and a great many for the legislature. It is incumbent upon the medical profession to enter into the careful consideration of the claims of every candidate just as it is the duty of every other citizen. These men all have a profound respect for their family physicians, and therefore the family doctor is in a strategic position with reference to his influence on certain phases of legislation. It would seem to be the duty of good medical men to offer for the legislature every year, but the number is discouragingly small as compared with some other sections of the world.

There are no seasonal variations of interest in medical society activities to speak of in South Carolina. Here and there a society may call off its meetings for the summer months, but this is not the rule. The district and the average county society functions with regularity and with enthusiasm the year around, and why not? Doctors need the information every day in their practices to be found best at medical society meetings.

The delegates to the American Medical Association have been apportioned again by that body for the states for the next three years. It is a source of gratification that by virtue of a membership of 861 South Carolina maintains her two delegates for the next three year period. The House of Delegates of the A. M. A. is a limited body of about 175 and the membership of the A. M. A. stands now at about one hundred thousand.

We wish to call attention to a very thoughtful article in this issue by Dr. Eaddy on Syphilis, that protean disease of which it has

been well said that, if one knows Syphilis he knows medicine. Dr. Eaddy has brought to our notice again that it is not new to us the universality of this disease and its bearing on civilization from the palaces of the great to the hovels of the poor, and the only way to find out where these cases are is to look for them every day and everywhere. For the seeker after this knowledge in South Carolina the State has provided a well equipped laboratory with very competent technicians to cooperate with him. The Chairman of the State Board of Health, Dr. William Egleston, called attention in his report to the House of Delegates to the efficiency of the laboratory and the vast increase in its service to the profession and the people of the State. It may be of interest to know that the number of tests made daily for Syphilis alone amounts to 250 to 300. The laboratory was the first department founded by the Board in 1908. It needs more money and should have it. There are only five people to do the vast amount of work demanded of it which is increasing by leaps and bounds every year.

ORIGINAL ARTICLES

*The Rural Health Movement

*By C. C. Applewhite, M.D., M.P.H., Surgeon,
U. S. Public Health Service, Columbia, S. C.*

Achievements in the field of Public Health can be regarded as one of the most striking accomplishments of modern civilization. The measures provided for the improvement of the general public health have been remarkably successful and have produced phenomenal results in disease prevention and health promotion. The development of public health organization in this country has taken place largely within the past fifty years. About the middle of the past century the urgent need for instituting some measures for the protection of human life from the ravages of disease had become apparent to many of the leaders and organization—machinery designed for this purpose was slowly being formulated. Lack of definite scientific knowledge of the etiologic factors involved and consequently of the preventive measures necessary was an impediment to real progress. The epochal discovery by Pasteur of the role played by bacteria in disease causation and the many scientific discoveries which followed rapidly in the wake of his work supplied the essential knowledge upon which a constructive public health program could be fabricated.

Quite logically attention was given first to the thickly populated sections where such preventive measures were most urgently needed. City Health Departments for the protection of the citizens residing therein sprang up in rapid succession. Likewise the various states established health departments. Many of these Departments too often followed in the wake of some terrible epidemic. At the beginning of the 20th century all of the states and cities of any consequence had health departments of a kind. Many of them were grossly inadequate for the public health needs, yet they served as a nuclei for future development. Prior to 1900 the

chief activities of these departments had to do with the control of epidemics and general sanitation. The sanitation program consisted mainly of the purification of public water supplies and the installation of sanitary sewers. It is an interesting sidelight to note that the construction of sewers was primarily for convenience and not for real public health reasons—an idea too frequently encountered to this day.

At this time little or no thought was given to the problem of protecting the health of those residing in the vast rural areas. In fact it was not regarded as a problem of any moment. The rural areas contiguous to these large cities probably profited to some extent by the work done therein. In the South the chief activities of the health departments of the States and large cities were designed primarily against yellow fever. As late as 1905 the State Board of Health of one southern state spent \$40,000 for the control of this disease. It is interesting to note that a large percentage of this sum was paid for the employment of guards who enforced "shot-gun" quarantine procedures. In 1908 the annual expenditure for the South Carolina State Board of Health was less than \$10,000. With this meagre appropriation no worth while public health program could be expected. These figures are given to illustrate the status of public health in the south, less than a quarter of a century ago. To day the rural health work of the southern states is the pride of this country and an object of serious study by many countries of the world. What then has caused this transformation?

Progressive public health administrators had noted that following the creation and improvement of city health departments there had been an appreciable reduction in the morbidity and mortality rates in the areas thus affected and that the rates in the rural areas, which were considered more favored by nature had not declined correspondingly. This observation was rather startling to a few and particularly to one, Surgeon L. L. Lumsden, who early manifested

*Read before the South Carolina Public Health Association at its meeting, Charleston, May 1, 1934.

a desire to determine the factors involved in holding these rates at a level higher than could be expected if the then known principles of sanitary science were applied. As a result of his vision and recommendations, the U. S. Public Health Service made sanitary surveys during the years 1914-17 inclusive of 17 counties in the United States to ascertain the essential data on the health of the people of the rural areas. In 1910-14 the Rockefeller Sanitary Commission engaged in a southwide campaign for the eradication of Hookworm disease. This campaign reached practically every county in the South. These two programs constituted a gigantic public health educational campaign. The seeds of a real constructive public health program were sown by these pioneers. Some of these seeds fell on stony ground, but many fell upon fertile soil and sprang up and brought forth fruit, now being utilized by the modern public health workers.

The campaign against hookworm disease and the sanitary surveys accomplished two significant results: first, the general public was given definite public health information and second, and what is more important, quite a large number of public health workers received valuable public health training and experience. During both of these campaigns special stress was placed upon the importance of properly disposing of human excreta. During these years of pioneering those actively engaged in the work were often the recipients of jibes and jests from the public, as a result of their enthusiastic advocacy of the importance of properly constructed sanitary privies upon the general public health. Notwithstanding these rebuffs, the enthusiasm of these workers was unabated for they were convinced that the cause they advocated was basically sound and theirs was a life-saving mission. It can be truly stated that the sanitary privy is the bedrock upon which the modern rural health movement was built. It is, therefore, very important that the modern public health worker be aware of this fact and fan the flame started by these pioneers to the end that their early hopes and aspirations may be ultimately realized viz. that at every house in the land, human excreta shall be disposed of in such a manner as not to jeopardize the health and well-being of any one. Too fre-

quently the modern health worker becomes so engrossed in the niceties of public health that the importance of excreta disposal is either forgotten or wilfully overlooked in the execution of the general health program. There are several factors which occasion the development of this attitude. In the first place the well-trained health worker is not afforded an opportunity to display his ultra-scientific training in a prosaic privy building campaign, since the procedures involved therein are based largely upon common sense and decency. Quite naturally he concludes that such common place activities should not engage the serious attention of one with his intellectual attainments. The program is, however, exceedingly difficult and hence entails an enormous amount of tact, ingenuity and honest toil. It is therefore much easier to shun these difficulties than it is to embrace them. This factor influences some. Fortunately for the cause, the rank and file of successful health workers have caught the vision and are "holding high the torch" handed them by the pioneers and real constructive progress is being made.

Environmental sanitation was given a terrific impetus by the entrance of the United States into the world war. An opportunity was afforded sanitarians to demonstrate on an immense scale the principles of sanitary science. The results accomplished were significantly triumphant. A large percentage of the population had an opportunity to observe first hand and become thoroughly familiar with the benefits which follow in the wake of correct sanitary procedures, which were practiced in the numerous army camps. In addition, the Public Health Service was called upon to properly sanitize the areas around all of the cantonments. In this program large numbers of the civil population were taught the principles of sanitation and observed a first-hand practical demonstration of the application of these principles and the benefits resulting therefrom. Since these camps were located in all sections of the United States, the educational effect of this extracantonment sanitation was rather far-reaching. At the termination of the war, most of those who had been in camp returned to their respective homes, and as a rule were anxious to see the principles learned during the war applied to the civil population. The public health

administrators very promptly and properly took advantage of the results of this gigantic public health educational campaign and directed the movement into constructive channels. Soon after the close of the war there was intense activity in the field of rural health service. The one important lesson learned both by the Public Health Service and the Rockefeller Commission in the early campaigns was that in order to accomplish real worthwhile results in the control of any of the communicable diseases, it is essential to have some local full-time agency upon which to rely. Both of these organizations working in separate fields demonstrated that the county health department manned by fulltime well trained personnel was the agency of choice for accomplishing this result.

The first reasonably adequate permanent full-time county health department designed to protect the health of a distinctly rural population had been established in 1911 in Yakima County, Washington. This department has continued to function in a satisfactory manner to this date. From this meagre beginning this phase of the work has grown slowly but gradually until at present the people of more than 500 counties are enjoying the privileges and advantages of full-time local health service. Notwithstanding these accomplishments modern public health workers should realize that vast areas still exist where the people do not enjoy this service. The surface has only been scratched and the need at this time is for men with the spirit of pioneers and who are willing to sacrifice and work enthusiastically for the consummation of the ideal cherished by those early workers.

The program of camp and extra cantonment sanitation definitely fixed the public health status of the sanitary engineer. Prior to the war many of the states in the union had no Division of Sanitary Engineering in the health department. As a result of the work done in this branch of service during the war the inclusion of sanitary engineering in civil health organizations became a matter of common procedure. The development of this type of service came so rapidly that it most assumed epidemic proportions. These divisions have functioned so satisfactorily and efficiently since their inclusion in health departments that no or-

ganization plan for a state health department would now be complete without a division of sanitary engineering. Sanitary engineering is now an integral part of any well-organized health department.

During the early stages of rural health work environmental sanitation was vigorously stressed. Little attention was given to the factors involved in the so-called "health promotion" activities, such as maternal, infant, pre-school and school hygiene. Such activities as the improvement of the public and private water and milk supplies, making safe the methods of excreta disposal, screening of homes, safeguarding public food supplies, and eradicating mosquito and fly breeding places were considered necessary for the preservation of health of all the people of a community thus affected, including mothers and infants. However, there are factors which have a special bearing upon the health and welfare of mothers and infants, which merited and secured particular attention of public health administrators. Even in maternal and infant welfare work, however, environmental sanitation should always hold first rank. To do otherwise, especially in the southern states, is to court disappointment.

The attention of rural health administrators was very forcibly directed to the necessity of doing special child welfare work by the revelations of the selective draft act. Practically one-third of the draftees between the ages of 21-31 were found to be unfit for military service at a time when the country needed them. A study of the causes of these disabilities revealed the fact that most of them could have been prevented had attention been given them in childhood. These findings quite naturally focused the eyes of the whole nation upon the necessity of safeguarding the child-life of the country. Hygiene of the school child first was given attention, then maternal and infant hygiene was stressed. Finally particular attention was given to the so called neglected group, the pre-school child. So effective have been the results of these campaigns that at present any well organized local health department would be considered incomplete unless maternal and child welfare work is a definite part of the general health program.

The growth of the rural health work has

been quite logical and natural, having been stimulated at different stages by various factors. With an improvement in the general technique of communicable disease control these activities were quite logically added to the rural health program. As a result of these natural accretions, the whole program of rural sanitation has been broadened to a considerable extent and at present embraces practically all of those activities which have an appreciable effect on the health and well being of the human race. The old rural sanitation movement has evolved into the present rural health movement.

The Problem

From the foregoing narration it is quite natural for the inexperienced individual to conclude that the problem of rural sanitation is simple and easy. To give such an impression has not been intended. From the beginning rural health work has been generally recognized by sanitarians as a most difficult and important problem. The chief difficulty is occasioned by the diffuseness of the problem. It is important because of the large number of people affected either directly or indirectly. Approximately one-half of the population of the United States lives under conditions which, from a sanitarian's view point, might be classed as rural. It is in these rural areas that the bulk of the nation's food supply is produced. Many of the water supplies of the larger centers of population have their origin in these areas or traverse them. The nation's milk supply is located in these areas. Thus it is seen that it requires very little imagination to visualize the magnitude and importance of this problem upon the health and happiness of the whole nation. With the development of improved methods of rapid travel the importance of the problem is intensified.

The urgent need for radical improvement in rural sanitation becomes appallingly apparent when some of the salient conditions found during the survey of 17 widely distributed counties in the United States by the U. S. Public Health Service are carefully studied. Of 51,544 farm houses surveyed only 1.22 per cent were equipped for the sanitary disposal of human excreta and at some of these homes thus equipped not all members of the household used the sanitary equipment; at 68 per cent the water supply us-

ed for drinking and culinary purposes was obviously not properly protected against potentially dangerous contamination. At only 32.88 per cent of the homes were the dwellings effectively screened to prevent flies, which had easy access to nearby deposits of human excreta, from having free access to the dining room and kitchen and thus contaminating food prepared for human consumption. These observations were made during the years 1914-17 inclusive. Remarkable improvement in these fundamental matters of sanitation has been effected since that time. However, there still remains to be done an enormous amount of work before it can be truthfully said that rural sanitation has reached even a reasonably satisfactory stage. A hurried cross country trip even now reveals to the trained sanitarian the urgent need for further improvement.

The Solution

The success or failure of the whole rural health movement will depend largely upon the character and extent of the public health educational program. The education of the masses in any subject is a slow and tedious process. Yet the marked advancement in recent years in education in other lines furnishes good evidence that reasonable progress can be expected in this vitally important field. How best to wage this educational campaign has claimed the attention of eminent public health administrators. There are those who firmly maintain that little thought should be given to educational efforts in behalf of the adult population but special emphasis should be directed toward the education of the children. Teaching theoretical sanitation in a rural school where many of the fundamental principles of sanitary sciences are daily violated in the form of contaminated water supply and the crudest and most insanitary method of excreta disposal is a grand farce. To make the necessary sanitary corrections at the school premises, money is required. To obtain money for this purpose the adults must be induced to provide it. Hence it is impossible to neglect this group if success is to be expected. Most of the farmers during the past few years have been taught newer methods of farming, stock-raising and horticulture and it is not unreasonable to believe that they can be taught something about the scientific care of their most im-

portant crop—a crop of healthy children. The mere fact that the people of South Carolina have supplied materials for the construction of some 30,000 privies within the past year is fairly conclusive evidence that the adult population can be taught the principles of sanitation. No doubt most of the failures in the past can be attributed more to faulty educational methods than to the inability of the farmers to be taught.

The whole educational program must be practical and based upon common sense.

Spectacular methods as a routine procedure should be studiously avoided. If used they should be very judiciously. All educational material should be clothed in language that is readily understandable and the facts should be so simply stated that they can be easily assimilated by the average individual. The main purpose of the educational campaign should be to acquaint the rural residents with those facts and principles of sanitary science which the sanitarians have had in their possession for the past quarter of a century in such a manner that they will make practical application of them. How to achieve this has been the object of much experimentation and investigation during recent years by the U. S. Public Health Service, the Rockefeller Foundation and Boards of Health of many states. It is interesting to note that all of these agencies have definitely concluded, after years of trial and experimentation, that the public health of a distinctly rural population can be more adequately and economically conserved through the agency of an efficient county health department manned by well trained full-time personnel than through any other method. Since the educational process must of necessity be prolonged it is necessary that the program be placed upon a permanent basis and that it be pushed vigorously and persistently. It has been found that more lasting worthwhile results can be obtained in any field of public health endeavor, such as environmental sanitation, child hygiene, or communicable disease control, by establishing a permanent local health department for a generalized rather than a highly specialized program. A well executed basic public health program is the most potent agency for teaching the people the principles of sanitary science. In this way

they are taught by precept and example. An efficient health department in one area is a powerful stimulus to the citizens of the contiguous areas. They have the opportunity to observe the benefits which their neighbors are enjoying from this service and such observations stimulate them to take constructive action. In a way the psychology of the present rural health program resolves itself into the procedure of making it stylish for people to apply routinely in a practical common sense manner the accepted rules of public health and sanitary science.

From this resume it can readily be seen that rural sanitation has gradually and quite logically grown into a generalized rural health movement. It is the well planned routine program executed from week to week and from year to year and not sporadic, highly specialized demonstrations, which must be relied upon to produce effective and lasting results. It is felt that in the future the efficiency of any state health department will be judged not by the size and activities of the central organization, but by the percentage of the population adequately served by full time local health departments through which the measures essential for the protection of the public health may be applied in a logical sequence and in proper relation one to the other.

Syphilis And The General Practitioner

By N. O. Eaddy, M.D., Pamlico, S. C.

This article is intended for the general practitioner; also, it is by a general practitioner.

While true that much has been written on the subject of syphilis, if you will devote a few minutes careful study to the material herein set forth it should prove worthwhile. It represents a study of 162 patients on whom blood tests for syphilis were done.

Table 1 reveals the first points of interest. Of 29 white males tested for syphilis, 17 per cent had a positive report. Of 19 white females, 10.5 per cent had a similar report. Of 64 negro males, 23 per cent had a positive report. And of 50 negro females, 44 per cent had a positive blood test for syphilis.

TABLE 1.

	White males	White females	Negro males	Negro females
	Percent	Percent	Percent	Percent
Positive test	17	10.5	23	44
Negative test	83	89.5	77	56

A minute's calculation with these figures shows that of the 162 patients tested 27 per cent were positive. This finding becomes yet more surprising in view of the fact that these patients were not particularly suspected of having syphilis. Almost every positive report in this entire series resulted from a *routine* blood test during the course of a physical examination. However, these figures do not warrant the conclusion that 27 per cent of the population in general, or even in this particular community, has syphilis: only the sick consult their physician, syphilis often being responsible for this sickness. Probably by far the greater part of the mass of people feeling too well to consult a physician do not have this disease. If they did have it they would likely, sooner or later, fall into a doctor's care. But it is safe to conclude that of the people consulting doctors, at least in this community, approximately 27 percent do have syphilis.

It is important to mention that all of these reports were not four plus: some were one plus, some two plus, and some three plus. Twenty six did have a four plus report the first test. Twelve had a one plus. Of these 12, 4 had a second test (the other 8 have not yet been reencountered) and 3 of these 4 had a stronger reaction the second time, varying from two plus to four plus.

Changing our consideration of the subject somewhat, suppose we consider it in its relation to pregnancy and infants. Examination of the case histories shows, as set forth in table 2, that of 24 women with a positive blood test for syphilis 8 per cent admitted at least one abortion in the 1st month of pregnancy, 8 per cent in the 2nd month, 0 in the 3rd, 8 per cent in the 4th, 0 in the 5th, 4 per cent in the 6th, 8 per cent in the 7th, and none in the 8th, 9th, or 10th months. * All of these abortions were claimed to have been spontaneous. Thus we see that 36 per cent of these 24 women had abortions.

Also, 13 per cent of these 24 women exper-

ience at least one stillbirth and 16 per cent lost at least 1 child before it was a year old. Taking these findings and those immediately above, it is evident that 65 per cent of these 24 women, at some time in their reproductive life, failed to deliver and rear normal children. I do not claim that syphilis is to be accused necessarily of being the causal agent in every instance but surely it must have contributed to the outcome of some of them. Unfortunately, I do not have reliable statistics as to the miscarriages, etc., among the women who had negative tests. I do not believe, however judging from my recollection of personal experience, that the rate would be nearly so high.

TABLE 2

	Abortion (Per cent)										Premat. Del.	Full term born dead (Per cent)	Died first year after birth (Per cent)
	Month	1	2	3	4	5	6	7	8	9	10		
Positive test		8	8	0	8	0	4	8	0	0	0	13	16
Negative test		?	?	?	?	?	?	?	?	?	?	?	?

In an effort to prevent any of you from skipping over the rest of this article in order to read the 'Summary' to see at exactly what this discussion is aimed I shall interrupt here a minute. In my opinion the general practitioner should do a blood test for syphilis on every patient on whom he does a physical examination if possible. I grant that it may *seem* superfluous to suggest to a patient with a broken arm, for instance, that you be allowed to withdraw a specimen of his blood for such a test before permanently dismissing him. But, if this practice is made a habit, some of these very cases will be found harboring syphilis. (Note case No. 2 at the close of this paper.) Of course, not infrequently the patient refuses to allow the procedure. Such cases are regrettable but, in them, the doctor has done his part.

In considering syphilis in its relation to some other diseases my records do not reveal much of value as table 3 shows. Of these 44 cases of syphilis, 18 per cent had cardiovascular disease, but so did 17 per cent of the 118 nonsyphilitics; 15 per cent of the syphilitics had chronic endocervicitis, but so did 12 per cent of the nonsyphilitics; 5 per cent of the syphilitics had acute sinusitis, but so did 3 per cent

of the others; 5 per cent of the syphilitics had, or had had, pellagra, but so did 3 per cent of the others; 9 per cent of the syphilitics had dental caries, but so did 8 per cent of the non-syphilitics. All in all, these five diseases were slightly more prevalent among those with syphilis than among those without but it would require a far larger series of cases to warrant drawing any definite conclusions.

TABLE 3

	Hypertens. cardiovasc. disease (Per cent)	Chronic endoervicitis (Per cent)	Sinusitis (Per cent)	Pellagra (Per cent)	Dental caries (Per cent)
Pos. test	18	15	5	5	9
Neg. test	17	12	3	3	8

A doctor is particularly prone to neglect the possibility of syphilis in a very young or very old patient. Consideration of table 4 reveals that the 42 patients with syphilis herein considered were in the following age groups: 2 per cent less than 10 years old; 5 per cent between 10 and 20 years; 43 per cent between 20 and 30; 16 per cent between 30 and 40; 14 per cent between 40 and 50; 5 per cent between 50 and 60; and 2 per cent between 60 and 70. It is evident then, is it not, that we cannot use the youth or senility of the patient as an excuse for omitting a test for syphilis.

Without much proof, I might also state that the occupation of the patient is also of little consideration. While strictly denying any intention of being sacrilegious, I might mention that one of my patients who had a four plus Wassermann and a four plus Kahn was a preacher (though, I am thankful, a negro preacher).

TABLE 4

Age in years	0 to 10	10 to 20	20 to 30	30 to 40	40 to 50	50 to 60	60 to 70
Positive test	2	5	43	16	14	5	2
Negative test	3	9	36	22	9	7	4

These figures in the Negative and Postive test indicate percentage.

An interesting feature of the marital status of these patients is the parallel findings. As is shown in table 5, 68 percent of the patients with positive tests were married and 70 per cent of those with negative tests were married. Similarly, 32 per cent of those with positive

tests were single and 30 per cent of those with negative tests were single.

TABLE 5

	Married	Single
Postive test	68 Percent	32 Percent
Negative test	83 Percent	30 Percent

In one further effort to point out that the general practitioner (or anyone else for that matter) should not consider himself capable of saying clinically that a blood test for syphilis should or should not be done I am listing below a few brief but suggestive case histories.

Case No. 1. E. F., a married negro male farmer 53 years old, used tobacco excessively and whisky moderately. He consulted me in March, 1933, complaining of "Misery in my chest." This trouble had just begun but, since about 1923, his abdomen had at times felt sore and full and, since 1930, he had been having moderate dyspnea at times on exertion. The past illnesses consisted of malaria "Every year," bladder trouble (frequency) in 1918, constipation since 1919, and a moderate amount of nervousness and sleeplessness since the middle of 1933. On physical examination the temperature and respiration were normal. Blood pressure was 120/60. Examination of the pulse and apex impulse revealed that every alternate contraction was a premature systole (or pulsus bigeminus). The teeth were decayed. The urine was negative. Diagnoses of myocardial degeneration, dental caries, and chronic constipation were made. A routine blood test was made for syphilis and the report was Wassermann negative, Kahn one plus. A provocative blood test later resulted in a report of Wassermann four plus and Kahn three plus. Anti-syphilitic treatment was instituted and shortly the pulsus bigeminus disappeared, though of course the dyspnea has not improved.

In this patient, either the dental caries, the chronic constipation, or both could have been accused of producing the patient's illness, especially the dyspnea and, in fact, syphilis was not seriously suspected.

Case No. 2. A. C., a negro male 47 years old consulted me in December, 1933, two days after having been in an automobile wreck, complaining of pain in the left side of his thorax. A diagnosis of fracture of the third and fourth left ribs was made. Routine blood test result-

ed in a report of Wassermann four plus and Kahn four plus.

In this case the routine blood test picked up an unsuspected case of syphilis which would probably have remained indefinitely unrecognized otherwise.

Case No. 3. L. C., a single female negro 20 years old consulted me in July 1933 for sore throat and intense pain over one eye. The blood test report was four plus.

Case No. 4. L. C., a married negro female 25 years old consulted me in February, 1934, for intense supraorbital pain. Physical examination was otherwise normal. Blood test report was four plus.

And so, one might go on, and on, and on.

Sometimes negative evidence is as important as is positive evidence. Consider the following, the last case, a minute.

Case No. 5. J. B., a single negro male farmer 19 years old presented himself in September, 1933, complaining of persistent sores on his right hand. During the past few years the patient had repeatedly burned his hand (while curing tobacco) without feeling any sensation of pain. For several months past, the areas burned would always form sores. The patient's mother had been under treatment for syphilis for several months. Physical examination revealed findings characteristic of syringomyelia and this diagnosis was made, along with chronic tonsillitis, deviation of the nasal septum to the left, bilateral congestion of the inferior turbinates, and keloids. Syphilis was strongly suspected and a specimen of the patient's blood consequently mailed to the Laboratory of the State Board of Health (which laboratory had made the other tests, too) and the report was *negative*. Still not satisfied, I did a provocative Wassermann and the blood taken later was also reported *negative*. Then a spinal puncture was done. The fluid was under such increased pressure that it escaped in a stream, albumin was three plus, globulin three plus, sugar two plus, and cells 25 per cubic millimeter. The cells were not differen-

tiated. The fluid was clear and, on being allowed to remain in a test tube for 24 hours, no web could be seen. The rest of the specimen was sent for a test for syphilis and again the report was *negative*.

These few cases are among others that could be presented offering evidence that the average, or even the best, of the general practitioners should not consider himself capable of judging clinically when a blood test for syphilis should be done on a patient. The very patient you are convinced does not have syphilis may have it and vice versa. The only way out which is just to the patient is to insist on, or at least suggest, a test for its presence if this has not already been done.

Summary

Chiefly for the benefit of the general practitioner syphilis is discussed from several different aspects, all intended to suggest the importance of a routine blood test for the presence of the disease in every physical examination. The ratio of syphilitic to non-syphilitic patients in a series of 162 cases in which blood tests were made is mentioned. Evidence that a report of one plus of a test for syphilis should not be regarded lightly is offered. The relation of syphilis to abortion, miscarriage, infant deaths, and several diseases is set forth. Several suggestive case histories are briefly detailed.

By directing this article to the general practitioner no reflection is intended on his work. I am myself a general practitioner. So many more patients come under our care than under that of the specialist that it proportionately behooves us to be more particular.

It is encouraging to any who enjoy relieving disability to realize how much can be accomplished by the method outlined herein but discouraging, indeed, to realize how few take advantage of this opportunity.

Conclusion

A general practitioner should consider himself duty-bound to do a blood test for syphilis on every patient coming to him for a general examination.

GASTRO-ENTEROLOGY AND PROCTOLOGY

BY W. T. BROCKMAN, M.D., GREENVILLE, S. C.

THE ANAL CANAL AS A FOCUS OF INFECTION

By Sylvester Cain, Jr., M.D., Greenville, S. C.

Various organs of the body which are subject to intercurrent and chronic infection such as teeth, gums, para nasal sinuses, tonsils, the gall bladder, the appendix, the prostate, the cervix uteri, etc., have for years been looked upon, and rightly so as sources of either toxins or bacteria which were responsible for symptoms or actual disease of other organs or tissues in some other part of the body. That this is undoubtedly true is universally accepted.

In recent years the anal canal for reasons of its anatomic structure, and consequently the infections harbored there, has been added to the long list of possibilities when the search for a focus of infection is made and regardless how thorough the history and pains taking the examination unless the anus and rectum have been thoroughly investigated the search is incomplete.

In order to clarify just what is meant when the anus or anal canal is mentioned and to more clearly understand why the anus comes to harbor infection, let us consider briefly the embryology and formation of the particular area. As you know the ano-rectal junction is the result of the fusion of the blind pouch of the descending hind gut with the proctodeum which is an invagination or in pitting of the ectoderm at the caudal end of the embryo. As these two blind pockets approximate there is a septum formed of both ectoderm and endoderm between them. This septum absorbs completing the connection between the rectum and anus and leaves a line designating the transition from columnar to squamous epithelium, which is called the pectinate or dentate line because of its serrated edge resembling a comb or saw tooth. It also is known as the white line of Hilton. A more logical name would probably be the ano-rectal line or junction. Since the caliber of these two tubes is so different it requires a consider-

able puckering or folding of the hind gut for the tubes to form connection and the remains of these folds can be recognized as the columns of Morgagni as the corresponding pockets overlapped by the enfolding proctodeum as the crypts of Morgagni.

From this it is readily seen that considerable variation can be expected as to anatomical position of the ano-rectal line as well as the number and depth of the crypts. Also anatomical defects occur and some authors believe that these explain the unusual occurrence of fistulas abscesses in infants. Only two weeks ago an infant of four months was seen in our office with a well defined abscess of definite anal origin, and very likely the result of a defective union or a poor fitting point. It is very easy to understand why the canal crypts, with their opening facing the fecal current, are frequently the place where infection gains a foothold and comes to be the cause of local disease as well as more remote aches and pains such as sciatica, backache, neuritis, joint and muscular pains and many other vague symptoms.

In some individuals who have unusually deep crypts the mere presence of the infected material will cause breaking down of the epithelial lining of the pockets and allow the infection to burrow beneath the mucosa and either remain as blind sinus tract or cause abscess formation with the resulting fistula. It is through this avenue that the infection which causes hemorrhoids gains entry and this view is held by a large percentage of the present day writers who invariably state that microscopically, hemorrhoidal disease is essentially a degenerative disease of the veins due to low grade infection. Many other local diseases can usually be traced to infection which originated in one or more of the cryptic pockets. Some of the more common ones are fissure, fistula, hemorrhoids, anal ulcers, pruritus, stricture, papillitis and proctitis any one of which can follow a long chronic course and consequently provide a constant

source for absorption of bacteria or toxins or both.

Since the area surrounding the ano-rectal line is so abundantly supplied by blood vessels and lymphatics it is not hard to understand that these infections are frequently the focus so diligently searched for but overlooked. The next question is how do you determine whether an anal canal harbors infection or not? This of course is very easy if some local complication such as fissure, anal ulcer, or abscess develops but in the event no rectal symptoms exist and you examine the anal canal and find the anal papillae red and edematous and the adjacent crypt walls likewise then further investigation by a small blunt wire will usually show that one or more of the crypts has a blind sinus tract leading away from its base. These tracts usually extend well out under the skin at the

anal margin but can extend in any direction and maybe single or multiple. If the inflammatory reaction in the area is very acute then it is difficult to demonstrate this unless anaesthesia preceeds the examination. Sometimes topical applications of cocaine, butyn, or other local anesthetics will give enough relaxation to allow the examination to be completed.

In the event the crypts are condemned as a focus of infection the treatment is of course to remove the crypts being sure to include the sinus tract and can very easily be done under local anesthesia. It is a harmless procedure and causes the patient very little disability provided other surgery is not done at the same time. To insure adequate drainage of the external end of the wound the narrow incision should be carried well beyond the anal margin out into the marginal skin.

TO THE MEMORY OF DR. J. M. HOBSON

The "Grim Reaper has again invaded the ranks of the Anderson County Medical Society, this time claiming as its victim our esteemed friend and colleague, Dr. J. M. Hobson.

Dr. Hobson possessed many sterling qualities that endeared him to his friends and to the profession to which he belonged, for he was a good man, a good doctor, a good friend and a good husband and father. He was scrupulously honest, rigidly candid and sincere and devout in the discharge of his Christian duties. We recall a conversation with him on one occasion which bears proof of his practical religion. He declared his unqualified belief in tithing and said he was fulfilling in this regard to the best of his ability.

We never knew a physician more intensely interested and concerned over the well-being of his patients. If he had a case in which he was not absolutely sure of his diagnosis and positive that he was doing the very best that could be done he unhesi-

tatingly informed the patient or the family and asked for consultation. He was in no sense a bigot and made no effort at winning the empty plaudits of the masses. He was the embodiment of a quartet of virtues that cannot be improved upon—industry, economy, honesty and kindness. He looked for the best in others and gave the best he had. His life was an inspiration; his memory, a benediction. As we contemplate the untimely passing of "Hob" as he was intimately known to many of us, and as we note his absence at our meetings and other occasions, we can't refrain from saying with Tennyson, "O for the touch of a vanished hand and the sound of a voice that is still." We offer these lines as a tribute of respect to our deceased brother and recommend that they be spread upon a page of our minute book.

Respectfully submitted,

B. A. Henry, M.D.

J. R. Young, M.D.

W. R. Haynie, M.D.

(Committee, Anderson County Medical Soc.)

SURGERY

WM. H. PRIOLEAU, M.D., F.A.C.S., CHARLESTON, S. C.

"TREATMENT OF VARICOSE VEINS"

The introduction of the injection method has by no means settled the question of the treatment of varicose veins. The pendulum is still swinging and as long as it does so we must keep an open mind. The operative treatment has long been used and in many cases the results were notoriously unsatisfactory. In advanced cases multiple ligations were totally inadequate. Even radical excision was followed by a large percentage of recurrences. For a time it looked as if the injection of sclerosing solutions would be a "cure-all." No doubt it has been the greatest single advance in the treatment of this condition but there are still some types of cases in which thrombosis does not take place, and others in which recurrences occur. It now appears that some of the cases which do not respond to the injection treatment alone, will do so if preceded by ligations. With this in mind it is important to determine beforehand in what types of cases the preliminary ligations should be used. From a review of a large number of personal cases as well as the literature Dr. William M. Cooper of New York—(Annals of Surgery 99:799 May '34) has arrived at certain conclusions in this respect.

In order to classify properly a patient for treatment it is first necessary to determine the condition of the venous flow in the leg. There may be incompetency of the valves of the saphenous vein itself; there may be an incompetency of the valves of the communicating veins causing the varicosities to be filled by a back-flow from the deep veins at different levels; there may be a combination of these two conditions; and finally in early cases varicosities may exist with the valves still competent.

The method of determining the condition is called the Trendelenburg test. There are a number of modifications of it. A simple one is as follows: With the patient recumbent and

the leg elevated so as to empty the veins, tourniquets are placed from the knee to the groin at intervals of 3 inches, just tight enough to occlude the saphenous circulation. The patient is then made to stand. If the varices are large and yet fill only slowly one may be sure that there is no deep communication in the lower leg. As the tourniquets are removed from below upward one can observe if at any point there is a sudden filling of the varices, thus indicating a back flow from an incompetent communicating vein. If the varices remain collapsed up to the removal of the last tourniquet one may exclude the presence of back-flow from deep communicating veins. A sudden filling upon removal of the highest tourniquet indicates an incompetency of the valves in the upper saphenous. By applying this test in various ways a satisfactory knowledge can be obtained of the so called Trendelenburg Status.

The injection treatment alone suffices where there is no incompetency of the saphenous valves or back-flow from the deep veins. Preliminary ligation at the sapheno-femoral junction is almost obligatory where there is an incompetency of the valves of the saphenous vein. There is some difference of opinion where there is a back-flow from the deep veins without incompetency of the saphenous valves, but the author is of the opinion that ligation at the points of back-flow is decidedly advisable. Ligation in these cases makes the injection treatment effective when it otherwise would not be; prevents recurrences; and also makes the injections more effective thus hastening the cure.

Ligation is done under local anesthesia. The patient generally loses no time from his gainful occupation. Sodium morrhuate 5 per cent has been found a very satisfactory injection solution. Pressure bandages are used after ligation and as indicated during the course of injections.

WOMAN'S AUXILIARY

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PRESIDENT'S MESSAGE

The splendid annual meeting in Charleston is over, and you have placed in my hands the gavel, the emblem of authority and action which I hope you will never regret.

The year is before us filled with opportunities. Whether much or little is accomplished by our Auxiliaries remains to be seen. Alone, the work that presents itself for our earnest consideration would prove impossible of accomplishment but with the help and cooperation of each individual member, together with a proper insight of the work at hand, I hope our efforts will meet success in whatever we find to do.

To those who have been elected to office or who have received appointments as Chairmen of Committees, my hope is that you study well the work entrusted to you, prepare yourselves to impart knowledge to those who will look to you for help and instruction.

By eleven years of earnest labor our predecessors have the work well established, our field of usefulness is great, and our aims are high but in order to succeed we need to arouse a greater interest in the minds and hearts of the wives, daughters, mothers, widows and sisters of every member of the Medical Profession in South Carolina. Many of these women have never given the work of the Auxiliary much, if any, serious thought. It is our hope to carry the work of the Auxiliary into every County in South Carolina that has a Medical Society. We realize that those who have preceded us have made an earnest effort to do this, in fact have blazed a trail for us to

follow. May we prove ourselves good scouts, pick up the trail and go forward during this our year.

May we ever keep in mind that we are an Auxiliary Organization, take council of our Advisory Boards, be ever ready to do that which they deem best and most necessary in our several counties to meet such conditions as may arise from time to time. Our tasks, in a general way, will be outline and sent to each County Auxiliary for your consideration.

I shall greatly appreciate any suggestion you may make to increase our usefulness and that would create more interest in our Auxiliary activities.

Again thanking you for the honor you have conferred upon me, I am yours in service always.

Irene Strother Corn,
(Mrs. Charles P. Corn,
President of South Carolina Medical
Auxiliary).

Clippings taken from Charleston paper:

"Mrs. Charles Corn, of Greenville, received the gavel as president for the coming year, and Mrs. Clarence E. Owens, of Columbia, was named president-elect to go into office next year, at the annual meeting of the auxiliary to the South Carolina Medical Association, held this morning at Francis Marion Hotel, in conjunction with the 86th annual session of the State Association, which opened here yesterday (May 1-2-3) and will convene throughout today and Thursday. Mrs. B. C. Bennett, of Spartanburg, second vice president, presided in the absence of the outgoing president, Mrs. Frank Wrenn of Anderson. The program featured a talk by the national president, Mrs. James Blake of Hopkins, Minn., who was the guest of the Auxiliary."

"Mrs. Blake in her talk stated that the county medical society is the basic unit of medical and auxiliary organization. It is the door through which admission may be secured to the state and national auxiliaries to the American Medical Association. She said, and brought out the fact that the State Auxiliary is strong, active and achieving, only when its component county auxiliary units seriously assume and discharge their responsibilities. She brought out the fact that the Auxiliary's paramount need of today is an undistorted sense of judgment, combined with common sense and team work. As suggestions Mrs. Blake stressed the following: Read magazine you don't like, read newspapers with which you don't agree, hear talks on subjects outside and contrary to your pet organization's program: In short,

find out what the opposition is thinking and feeling about things. In this way and this way only can women be broad-minded and keep from becoming lopsided mentally."

"Mrs. Blake and Mrs. Corn were presented with shoulder corsages of orchids and lillies of the valley and Mrs. Corn, upon accepting the gavel from Mrs. Bennett, made various recommendations for the organization."

At the adjournment of the meeting at 12:30 P. M. the delegates and visiting ladies entertained at

luncheon at the Charleston Country Club. A ride at 3 o'clock and at 5 o'clock a reception at the home of Mrs. J. Sumter Rhame, 65 South Battery and 9 o'clock the president's ball at the Francis Marion Hotel.

Mrs. A. E. Baker, Chairman of the Auxiliary program welcomed those attending meeting. The response was made by Mrs. Pope of Columbia. One of the most interesting reports was made by Mrs. W. A. Boyd on Student Loan Fund.

The next meeting will be held next spring in Florence.

- - SOCIETY REPORTS - -

PROCEEDINGS OF THE REGULAR MEETING OF THE MEDICAL SOCIETY OF SOUTH CAROLINA, WHICH WAS HELD AT ROPER HOSPITAL TUESDAY EVENING, MAY 8th, 1934, AT 8:30 O'CLOCK

The meeting was called to order by the President, Dr. Francis B. Johnson.

Present: Doctors: A. E. Baker, Jr.; Ball; Banov; Beach; A. J. Buist; Burn; Cannon; Cathcart; Chamberlain; de Saussure; Gantt; Hope; Jenkins; Johnson; La Roche; McCrady; Martin; F. L. Parker; Peeples; Prioleau; J. J. Ravenel; W. J. Ravenel; R. B. Rhett; Rudisill; Rutledge; Sams; W. A. Smith; W. H. Speissegger; Steinberg; Taft; E. W. Townsend; Van de Erve; Whaley; R. Wilson; R. Wilson, Jr.; Siegling. (36).

Guests: Dr. Lassek and Dr. Hoke of the Medical College, and Dr. Ferris.

The minutes of the meeting of April 24th were read and confirmed.

The Secretary reported that the application of Dr. B. R. Baker for re-instatement in the Society had been passed upon favorably by the Board of Censors. On vote, Dr. Baker was re-elected to membership.

The Secretary read the following letter from Dr. E. A. Hines:

Dr. Francis B. Johnson, President
Medical Society of South Carolina
Charleston, S. C.

May 5th, 1934.

Dear doctor:

Please express to the members of the Medical Society and particularly to your various committees, my profound appreciation of their splendid cooperation in making the Eighty Sixth annual meeting a marked success. To my mind almost every wish was anticipated and certainly every request promptly attended to. I think I may say in all candor that I

have never seen one of our meetings carried out with such perfect precision. It seemed to me that nothing was left undone to make our stay in Charleston pleasant and profitable and we departed with memories long to be retained of your delightful hospitality.

Yours truly,

Edgar A. Hines,
Secretary, South Carolina
Medical Association.

This was received as information.

Dr. Robert Wilson, Jr., member of the Committee on Medical Economics, stated that the committee was desirous of obtaining information about certain of the legal aspects of the report which his committee had under advisement, and requested the permission of the Society to consult the Society's attorney. It was moved, seconded, and carried, that the Committee on Medical Economics be permitted to consult the Attorney for the Society in regard to the legal aspects of matters referred for report to the Society.

Under Miscellaneous Business, Dr. Robert Wilson spoke of the close fellowship which had always existed between the profession of Philadelphia and Charleston. He paid a tribute to Dr. William W. Keen, who died at the ripe age of ninety-five, having distinguished himself as a surgeon and essayist. He stated that at the request of Miss Florence Keen, daughter of Dr. Keen, he desired to deliver to the Society "Papers and Addresses," by Dr. William W. Keen, which had been forwarded to him by her for presentation. It was moved, seconded and carried that the volume be accepted by the Society and that the Secretary write a letter to Miss Keen, expressing thanks and appreciation.

Dr. Robert S. Cathcart, chairman of the committee to draw up suitable resolutions as a memorial for Dr. William Henry Johnson, reported as follows:

William Henry Johnson, M. C., was born in Charleston, South Carolina, on March 30th, 1870, and died at his home in Charleston on April 14th, 1934. He received his early schooling in the private schools of his native city, later entering the University of South Carolina where he completed a scientific course in three years. He then entered the medical department of the University of Virginia and was graduated from this institution in 1893.

At the present time it is a recognized fact that a man, to be properly equipped for the practice of medicine, should take as much time as possible after his graduation from medical college, for special study and training before he begins his practice. In 1893 few men followed this course but Dr. Johnson was one of the few who was not content to begin his life work until he had enlarged his knowledge and perfected his technique. He received valuable training in several New York hospitals and also took a course in the Bellevue Medical School, following this training with two years of intensive study in various clinics in Germany. He returned to Charleston and began the practice of medicine in 1900. It was characteristic of him to assume other duties in addition to building up his practice. He taught in the Medical College, was active in the work of the Shirras dispensary serving for four years as city dispensary physician at the Charleston County Jail. He taught at the University of the South for several years, was an instructor in gynecology at the Charleston Polyclinic and in roentgenology at the Medical College. At the re-organization of the Medical College when it was taken over by the State he was elected professor of orthopedic surgery and served in this capacity until his death. Dr. Johnson was an intensely patriotic man and offered his services to the government in the World War. He held a commission as Captain in the Medical Corps U.S.A. and was sent to France where he served a year and made an enviable record.

Dr. Johnson was one of the first physicians in Charleston to take up the study of roentgenology and was considered an authority on some phases of this section of medicine. The study of orthopedics finally became his life work and in the diagnosis and treatment of fractures and diseases of the bones he had few peers. He invented many ingenious splints which he used with much success.

Dr. Johnson's avocation during his later years was collecting historical data relating to his beloved Low Country and at the time of his death he had about completed a volume of genealogies of certain Low Country families.

Dr. Johnson married Miss Lottie Ellison Capers in 1898. He was a member of Grace Protestant Episcopal church and for many years served as a member of the vestry and took a very active interest in the affairs of the church. He was a member of the American Medical Association, the South Carolina State Medical Association, the Medical Society of

South Carolina and other medical organizations. He was a most devoted member of the Phi Kappa Psi fraternity and followed its ideals and principles throughout his life. He was active in the social life of Charleston.

It is a difficult task for those of us who knew him well and loved him for his fine qualities of mind and heart, to do justice in this brief sketch to his many sided character. He practiced his profession for thirty-four years and his ethical standing was never questioned; he drew his patients from all walks of life and was as ready to aid the humble negro as the man of wealth. He was a pioneer in many lines of medicine and the medical students who came under his influence as a teacher left his classes with enlarged visions of the kind of service they could render suffering humanity.

Dr. Johnson was a deeply religious man and although he did not force his convictions on others, his intimates were aware of this basic quality in his nature. As an evidence we would quote from a prayer written by him to a young boy:

<i>Attune</i>	"Let us pray our prayer together: Thyself O Lord to the vibrations of the souls of Thy audacious supplications, and us those things which are best for us.
<i>Grant</i>	us what Thou wouldst have us do.
<i>Teach</i>	us the desire and power to accomplish the same, as by right we should.
<i>Give</i>	to us a full measure of ability, happiness, health, prosperity, temperance, faith, hope, charity, humility, industry, aggressiveness, self-respect and contentment as is good for us, we ask in the name of Thy holy Son, Jesus Christ, Amen.
<i>Vouchsafe</i>	This may sound preachy but it is not. It is but a vibration from chordae tendinae (heart strings) which are in unison with yours."

Dr. Johnson was an extremely modest man and would never seek the praise of his fellows, and so, to live each day to the fullest, to deal honestly with all men, to be loyal to his friends, to deal gently with the erring and give of his wisdom to those needing help, to love all men and rejoice in every advance made by men in his beloved profession,—this was William Henry Johnson's creed and by it he lived and will always be remembered by his friends.

Be it therefore resolved:

1. That in the death of William Henry Johnson, M.D., the medical profession has lost a man of vision and one who by his life best exemplified the highest ideals of his profession;

2. That the City and State have lost a good citizen;

3. That the Medical Society of South Carolina laments the departure of a valued and loyal member and testifies to the honor he brought to it;

4. That a page in the Minute Book be inscribed to his memory and a copy of these Preamble and Resolutions be sent to his family.

Edward Rutledge, MD.
Robert Wilson
R. S. Cathcart
Committee

May 8th, 1934.

It was moved that this preamble and resolutions be adopted by a rising vote, the members to remain standing for one minute in contemplation of the versatile life and labors of Dr. Johnson. This motion was carried.

The Scientific Program was called at 9:00 P. M.

Dr. J. H. Cannon reported and exhibited several cases illustrating the various types of cardiac arrhythmias.

Dr. Robert Wilson read an able paper on "Statistical Study of Cardio-vascular Mortality in Charleston."

These papers were discussed by Doctors Rutledge, Chamberlain, LaRoche, R. B. Rhett and Van de Erve, Dr. Wilson closing.

There being no further business, the meeting adjourned.

W. Atmar Smith, M.D.,
Secretary.

POLIOMYELITIS IN CALIFORNIA

With the news spreading widely over the United States that there is an increase in the incidence of anterior poliomyelitis in the Los Angeles area, physicians everywhere are being besieged with questions as to whether or not it is safe to travel into that district and as to whether or not the incidence is sufficiently great to be termed epidemic. The number of cases is well beyond the average incidence of infantile paralysis in the community concerned and is therefore of epidemic proportions. No one can say just when the epidemic will reach its peak. The factors concerning the duration of such epidemics are not well established. Some epidemics in southern California, according to information received from the U. S. Public Health Service, seem to extend over longer periods than elsewhere, and the curves have flatter tops than those of other similar areas. This does not necessarily mean a larger number of cases per hundred thousand of population.

The incidence of poliomyelitis is higher than normal for Los Angeles or for any other California district, and it is not considered safe to send a small child into the vicinity. The danger, of course, is small in comparison with the danger from much more contagious conditions, but the danger is definite and should not be assumed if it is avoidable. A child under six years of age falls within the most susceptible age group and for this reason would be subjected to special hazard if taken from a noninfected area into an infected area. It is, moreover, especially difficult to protect a child against contact with infantile paralysis, since the disease seems to be distributed



TWIN responsibility FOR THE DOCTOR

IT is to her doctor that the mother looks—not only for her own well-being—but that of her child.

During pregnancy her own bones and teeth must be safeguarded; but so also must be the developing bones and teeth of the little newcomer. This is the doctor's twin responsibility.

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by carriers, as are also scarlet fever and diphtheria, so that the child might become infected from a person who is apparently well. Epidemiology establishes the fact that infantile paralysis, like epidemic encephalitis, clears up with the coming of cold weather. In the Los Angeles area the first really cool weather may not be expected until November or December.

Considerable agitation is apparent among parents as well as among physicians for mass immunization of the apparently well child, not only in the Los Angeles area but also in San Francisco and in adjacent cities. Whole blood or convalescent serum is suggested for prophylaxis. A survey of the available evidence indicates that neither of these methods has been used to a sufficient extent in well controlled experiments to provide data of value, either in favor of or against its efficiency. In measles, convalescent serum seems to have value, and, with the certain knowledge that antiviral substances for poliomyelitis

exist in the serums of adults and of recovered cases, the prophylactic use would seem to be rational and might be given a trial in children who are unavoidably exposed to the epidemic area. However, the period during which such protection might continue from a single injection is not known. If such experiments are made, records should be accurately kept, as the information will be of exceeding value in determining future practice.—*Jour. A.M.A.*, June 23, 1934.

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Loose Stools in Infants

require extra diapering, and inconvenience the mother

Clinically, loose stools are accompanied by a dehydration which, when excessive or long continued, interferes with the baby's normal gain. A long-continued depletion of water is serious, since "the fluid requirements of an infant are tremendous. A normal infant 15 pounds in weight will frequently excrete as much as one litre of urine per day. A negative water balance for more than a very short period is incompatible with life." (Brown and Tisdall)

Moreover, when the condition is superimposed by chance infection, the delicate balance may be seriously upset, since the infant's reserves have already been drawn upon, so that resistance to infection and dangerous forms of diarrhea may be too low for safety. Every physician dreads diarrhea, which Holt and McIntosh call "the commonest ailment of infants in the summer months."

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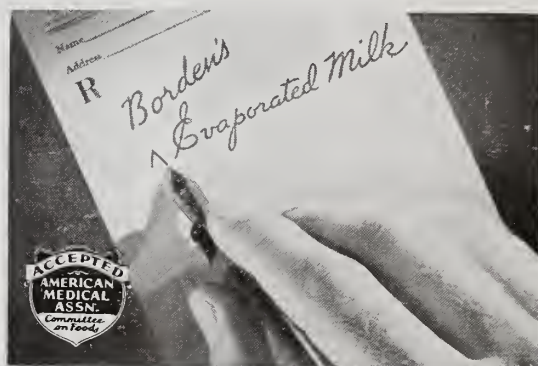
But, Doctor—his feelings would be nothing to yours if you could listen in—and hear the light-hearted way those ladies toss medical advice about!

And when the talk turns to infant feeding—how they love to trade their pet prescriptions! For some strange reason, almost everybody enjoys meddling with the feeding instructions a young mother gets from her physician.

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EDITORIAL

THE POLITICAL CAMPAIGN. THE DOCTOR AND THE PEOPLE

This is campaign year when many are offering for public office, state and county—governor, lieutenant governor, representatives and senators. The personnel that is elected to office will be an integral part of the body that will build and maintain our legal machinery to run our government.

A percentage of those offering for office are efficient, with honesty of purpose. Others are only seeking office for personal gain. They are inefficient with no honesty of purpose, their only aim being to build up and maintain a political machine whereby they may secure votes for personal interest—inefficient in the first place, personal interest solely in the second place, and get anything they can, any way they can in the third place.

The medical profession should be definitely interested in all affairs pertaining to prevention and treatment of all diseases. With undaunted

courage, they should endeavor to see that all necessary constructive work for the best interest of our people is properly developed and carried out.

To accomplish anything of any magnitude requires knowledge and thought. The Medical Profession can accomplish anything constructively that the people need provided we unanimously proceed in the right way. We should be strong enough organically so that the officers of our state and county associations, including president and secretary with the Board of Councillors of the state, and the president, secretary and board censor of the component county societies would get up an intelligent questionnaire to be sent to all candidates for the office of governor and lieutenant governor, to be sent by the Secretary of the State Association. Also a questionnaire to be sent from each county society to all candidates for the house of representatives and senators, causing all candidates offering for the various

offices to state their position with reference to all constructive medical affairs. The time to put a candidate on the spot is when he is seeking votes, and before he is elected.

NOV is the time for the medical profession to stand up as one unit with a definite set purpose to see that the necessary constructive legislation is developed and maintained for the best interest and protection of our people. My most humble opinion is that, unless we take the initiative and carry out some such plan as outlined, we are fast headed for the political control of the practice of medicine, which we all know, would be most deplorable.

Samuel E. Harmon, M.D.

July 12, 1934.

THE INFLUENCE OF THE DOCTOR, ON LEGISLATION

We wish to call particular attention to the remarks on the present political campaign by the President Elect of the Association and to urge the thoughtful consideration of his suggestions by every doctor in the State. Dr. Harmon points out the urgent necessity for action on the part of organized medicine in the interest of the health of the people and also the interest of the practitioner of medicine himself. Looking back over the history of the South Carolina Medical Association and its influence on legislation there is cause for belief that by and large our legislatures have been influenced favorably in numerous instances by the efforts of organized medicine. It is necessary however to be on the alert continually and particularly during a campaign year such as this is.

Dr. J. W. Jervey a past President of the Association called the attention of the House of Delegates at the Charleston meeting to the importance of the questionnaire plan and presented letters to the House from some of the candidates for Governor showing their past favorable attitude toward cult legislation which the Association had opposed for so many years. The House of Delegates approved of the wide spread dissemination of the information secured by Dr. Jervey from several of the respective candidates for Governor. This incident was due to the forethought of one of our members but the plan as suggested by the President

Elect would be much more effective if carried out by every county medical society and by the State Association itself.

There is ample evidence in many sections of the country that concerted effort on the part of a thoroughly organized profession is often successful in securing desirable legislation and also in obstructing the enactment of undesirable laws.

UNITY OF ACTION BY THE A. M. A. THE TEN POINT PROGRAM

Perhaps for the first time in its history the American Medical Association at the meeting in Cleveland came nearer to a united stand on any proposed changes in the practice of medicine. We present herewith the ten points adopted by the A. M. A. for the guidance of the members of the South Carolina Medical Association in any efforts they may be considering along this line. Interpretations of these ten points will be submitted by the A. M. A. from time to time to the profession of the country but every effort has been made to begin with to avoid the necessity for misunderstanding of the purpose in view.

The Ten Points

1—All features of medical service in any method of medical practice should be under the control of the medical profession. No other body or individual is legally or educationally equipped to exercise such control.

2—No third party must be permitted to come between the patient and his physician in any medical relation. All responsibility for the character of medical service must be borne by the profession.

3—Patients must have absolute freedom to choose a legally qualified doctor of medicine who will serve them from among all those qualified to practice and who are willing to give services.

4—The method of giving the service must retain a permanent, confidential relation between the patient and a "family physician." This relation must be the fundamental and dominating feature of any system.

5—All medical phases of all institutions involved in the medical service should be under

professional control, it being understood that hospital service and medical service should be considered separately. These institutions are but expansions of the equipment of the physician. He is the only one whom the laws of all nations recognize as competent to use them in the delivery of service. The medical profession alone can determine the adequacy and character of such institutions. Their value depends on their operation according to medical standards.

6—However the cost of medical service may be distributed, the immediate cost should be borne by the patient able to pay at the time the service is rendered.

7—Medical service must have no connection with any cash benefits.

8—Any form of medical service should include within its scope all qualified physicians of the locality covered by its operation who wish to give service under the conditions established.

9—Systems for the relief of low income classes should be limited strictly to those below the "comfort level" standard of incomes.

10—There should be no restrictions on treatment or prescribing not formulated and enforced by the organized medical profession.

ORIGINAL ARTICLES

Value of Vital Statistics To Public Health Workers

*By Martin B. Woodward, M.D.,
Columbia, S. C.*

Sir Arthur Newsholme, that eminent English student of life, defines Vital Statistics as "the science of numbers applied to the life history of communities and nations."

For our present discussion we may call it the bookkeeper of Public Health.

Just as a business man uses his bookkeeper to gauge the success or failure of his business, so we can use Vital Statistics to determine how much in the way of dividends we may have or expect to have. Indeed I know of no other way by which the alert Public Health Worker can tell with any degree of accuracy what his worth is to the community he serves. The information to be derived from an intelligent study of Vital Statistics records of a City, County, or State, if combined with a similar study from an epidemiological viewpoint will leave no doubt as to the status of that community from a health standpoint—if I may use such a term.

From the birth and death certificates that come to us we obtain all of the published information that you have seen as well as some that is not published. We know, for instance, how many children died under the age of one year in any county for each month of the year. The same is, of course, true of all other age groups. We have tabulations of the number who died in each county from some 51 causes of death, including accidental deaths and homicides. We know the number of mothers who died during or as a result of pregnancy. Here let me say that at least 90 per cent of the births and deaths that occur are reported. While this leaves nearly 10 per cent of "unknowns" we do get comparable tabulations from year to year. In this way we can observe the trend of

deaths due to various causes over a period of years and can predict with a fair degree of accuracy the recurrence of certain diseases. This is especially true of such diseases as diphtheria, measles and the like that occur in epidemics every two or three years.

Do you know the population of your county? its assessed valuation? the general birth and death rates or the infant and maternal rates. If you had such information what use would you make of it?

It was my privilege to spend a year at the Johns Hopkins School of Hygiene and Public Health recently. While there two things were impressed upon me, viz: (1) Get thoroughly acquainted with the community in which you work as to its birth and death rates, etc., that I have just referred to; and (2) plan your work to overcome the most serious obstacles in the road to health. In South Carolina the local health officer largely plans his own program, provided, of course, it conforms with the policies of the State Board of Health. This permits the exercise of one's initiative which, in my opinion, is one of the most valuable characteristics a Public Health Worker can have.

To properly plan his work, therefore, he must have at his fingertips certain general information and should have much other information at hand in condensed form in a little pocket notebook. What can be more embarrassing than to be asked the population or the infant death rate of one's own community and not be able to give it?

From the Bureau of Vital Statistics one may obtain the assessed valuation of the property in his county; the population by color, sex and age groups of State, counties and principal cities; illiterate population; number by sex and color, engaged in agriculture and industry; the number of foreign born and native born of foreign parentage; and school attendance during census years. Since some of these figures are obtained from the Bureau of Census at Washington which gets its information from the

Read before South Carolina Public Health Association at its meeting in Charleston, May 1, 1934.

census returns, estimates must, of course, be made for years between those in which the census is taken.

Many insurance companies require proof of death before they will pay claims. All claims relative to veterans compensation must be accompanied by proof of birth and (or) death of those concerned. We have from 5 to 20 requests daily for certified copies of birth and death records. You can easily see that often much needed financial and other benefits are withheld when a birth or death is not recorded—or when in spite of our best efforts such are incorrectly recorded.

In addition to furnishing information that I have already referred to we keep morbidity records of some thirty of the more common diseases. The cards on which these are reported pass through the offices of the county and city health departments. While it is of course best to have telephonic reports of these diseases as soon as a diagnosis is made, you can, nevertheless, get a great deal of useful information from the cards. The regrettable part is that only about one-third of the practicing physicians make regular reports of these diseases and in counties where there are no health workers there is no one to stimulate the interest of physicians to make prompt and complete morbidity reports.

While serving as County Health Officer in two counties I have clearly seen the disadvantage of trying to substitute general information for specific knowledge. I am reminded, in this connection, of a Public Health Worker who states that much of his knowledge came from the mistakes he made. What a wholesome attitude—provided we, as he did, profit thereby. The U. S. Public Health Service has a saying that "no health department, State or local can effectively prevent or control disease without knowledge of when, where and under what conditions cases are occurring." To that we may well add that no health worker will ever accomplish much work in his community without knowledge of the general birth, death and disease conditions and making use in a practical way of such knowledge.

The Bureau of Vital Statistics can supply you with some of this information. You can and should constantly add to your knowledge

of the progress, or otherwise, you are making by a periodic and accurate "balance sheet" including both concrete results and the personal equation using our office as much as you wish. Let me say here that mortality figures are not available until approximately two months after deaths occur since certificates of births and deaths are sent us on the 10th of the month after they occur and it requires about a month to correct, classify and tabulate the results in such a form that they can be used. However, it is better to have information two months old than 16 or 18 months old as it is when one waits for an annual report from the State Board of Health.

An excellent way to stimulate one's interest is by getting as much data as possible on various problems with which you are or may be faced—such research is always helpful.

So then we must know our problems in terms of births, deaths, sickness and the factors influencing these. Then we must do something about them, always keeping open minds and being ready to change our methods of combat as soon as we find better ones.

The Bureau of Vital Statistics of the State Board of Health will gladly furnish you with such data as we have. As soon as we can increase our facilities we will be enabled to furnish you much more information.

Brain Tumor: Presentation of a Case

By Charles T. Bullock, M.D., Columbia, S. C.

I have recently become interested in the subject of brain tumor, mainly, because of the fact, that since I have been connected with the State Hospital we have had a number of patients die with this condition while we stood by unable to do anything whatever to save them. At one time we had three deaths from brain tumor within a period of three weeks.

Sometime ago the diagnosis of brain tumor seemed but a part of a death sentence, but, due to the rapid strides in recent years along the lines of brain surgery, we no longer look upon this diagnosis with such a feeling of profound

Read before the South Carolina Medical Association, Charleston, S. C., May 3, 1934.

horror, but rather with an increasing sense of optimism.

Probably the greater portion of tumor cases cannot be benefited but a great many can be and a relatively large number of these can be cured completely by operation. Without it there is absolutely no hope, so we have resolved that no other case under our care shall die without being offered that one chance through surgical intervention.

Some of our cases have been easy to diagnose, a few have been diagnosed only at autopsy, and others no doubt have passed unrecognized. But now with the aid of a careful and complete history, a thorough physical and neurological examination, an eye ground examination and visual field, and last but probably most important of all, encephalograms, we feel that we can recognize this condition with a fair degree of accuracy, though by no means do we claim to have reached the point of perfection.

So far we have operated only on one case. This young man has been out of the hospital several months, but has been kind enough to come down here from his home in Orangeburg to appear before us this morning.

This case we present today is the case of a white male thirty four years of age, admitted to the State Hospital, May 9, 1933, as an epileptic. The family history is negative. Past history—patient is an insurance agent of high school education, married and without children. Had the usual childhood diseases and typhoid fever in 1915. As a child he was never very active, never steady on his feet and as a result of this at the age of seventeen he fell from a motor car on the railroad injuring his left foot. Patient states that he could never run and play as other children due to intense headaches. He had these headaches constantly until he was about sixteen years of age when they became less intense, but still troubled him occasionally. About this time he had a serious illness which his physician said was typhoid but later another physician told him that it was not typhoid but brain fever. He was in bed he thinks about two weeks. This illness left him partially paralyzed on the left side. The left hand was of very little use to him and, though walking with a distinct limp, he was

able to get about with very little difficulty and conducted his business successfully until the onset of his present illness. In fact, he had a medal awarded him for having written more insurance for his company than any other agent in that district.

However, about four years ago at the age of thirty one he began having convulsions. These were light at first and occurred about once a month, as time passed they increased rapidly both in frequency and in severity, usually he would have about one per day even though he was taking a daily dose of three grains of luminal. Occasionally he would have a series of several in one day. During attacks he would fall unconscious, bite his tongue and occasionally lose control of the sphincter muscles. These seizures were followed by episodes of excitement in which he was unruly and dangerous. He attacked others and attempted suicide a number of times. According to the relatives he begged them to cut his throat and stated that death was preferable to what he was going through. Between attacks he was very irritable and quarrelsome.

Physical and neurological examinations reveal a well developed and apparently well nourished young man whose general appearance immediately attracts attention. He stands, sits or walks with his head thrown well back as one does in looking under the glasses. He states that he has to do this in order to be able to see straight ahead of him. He walks with a limp that is quite noticeable. There is a nystagmus of both eyes more marked on the right and especially when focusing on an object downward and to the left in his field of vision. The right eye has lost most of its rotary motion. The left is normal in this respect. The right pupil is larger than the left though both react to light and in accommodation and are regular in outline. No ptosis of either eye lid. No evidence of facial paralysis. The tongue protrudes without deviation and without tremor. The left arm and leg are smaller than the right and are slightly spastic. They show definite muscle incoordination. The grip in the left hand is greatly impaired. When standing on the left foot the patient tends to fall towards the left side. The cremasteric reflex is absent. The patellar reflex is normal on the right, but

greatly exaggerated on the left. No ankle clonus present. Babinski, Oppenheim and Rhomberg negative. Sensations of heat, cold and pain are greatly diminished on the entire left side of the body, but sense of touch is well preserved. Other physical findings are essentially negative and I shall not take the time here to go into the details of the records.

G. U. report partial paralysis of the bladder.

This brings us to the laboratory findings. Several lumbar punctures were done, but at no time was there any noticeable increase in pressure. The Wassermann and Kahn on both the blood and spinal fluid have been consistently negative. The mastic test was positive. The Colloidal Gold test showed 55555+2100. June 6, 1933, the spinal fluid showed a slight sugar reduction and 131 cells. On August 8th a specimen of spinal fluid showed 71 milligrams of sugar to 100cc with a cell count of 92. Of these 79 per cent were lymphocytes. The urinalysis and blood count have been normal at all times.

Eye ground examination showed hyperemia of both discs with a 20/30 vision in each eye. Both visual fields were greatly contracted, but the right much more than the left.

Operative Note

On September 22, 1933, we injected air into the ventricles and took a series of x-ray pictures, a careful study of which led us to the conclusion that the case was one of brain tumor and that it was situated well back in the right cerebral hemisphere probably in the temporal lobe. So we proceeded to operate on him and at operation found in the right temporal lobe a tumor mass as large as the average lem-

on. We removed a greater portion of this mass but could not remove quite all due to the fact it extended down below the tentorium. The pathologist reported this as a pearly tumor or Cholesteatoma. This name was first suggested by Cruveilhier in 1829 because of its close resemblance to mother-of-pearl.

The post operative course was practically uneventful. However, he did complain of slight headache at time and occasionally ran a slight elevation in temperature. He sat up in a rolling chair on the 12th day and walked with assistance on the 14th. On the 17th day he appeared before the Columbia Medical Society.

After operation patient continued to be very irritable for a while, but rapidly became much more agreeable. He went along for several days without having a convulsion and had had very few when he left the hospital in December. Since then he has had only five and his wife states that he had these only when suffering greatly from constipation. They are much lighter than before operation and don't leave him confused as before.

The rotary motion in his left eye has returned to a great extent so that he no longer has to hold his head back to be able to see ahead of him. The nystagmus has disappeared completely from the left eye and almost entirely from the right. He can use the left hand much more than before operation. The limp so noticeable in the left leg before operation is scarcely noticeable at all now. He has gained about twenty-five pounds in weight and states that he feels better than he ever has.

In reporting this case I wish to give due credit to Doctor Roger Doughty of Columbia who performed the operation. It afforded me a great deal of pleasure to assist him in the operation and to follow the case with him through the convalescence.

- - - - MINUTES - - - -

SOUTH CAROLINA MEDICAL ASSOCIATION

Eighty-sixth Annual Session

MINUTES OF HOUSE OF DELEGATES

The House of Delegates of the South Carolina Medical Association met in the ballroom of the Frances Marion Hotel, Charleston, on Tuesday, May 1, 1934, and was called to order at eighty twenty-five p. m. by the President, Dr. R. E. Abell, of Chester.

The report of the Committee on Credentials was called for, and Dr. E. E. Epting, Chairman, reported forty-seven delegates present and entitled to vote.

The President named the following as a Reference Committee on Resolutions: Dr. Robert S. Cathcart, Chairman; Dr. James McLeod; Dr. J. R. Young; Dr. O. B. Mayer; and Dr. W. E. Simpson.

President Abell presented Dr. William Egleston, of Hartsville, President-Elect, who spoke as follows:

Dr. William Egleston, President-Elect:

Mr. President and gentlemen of the House of Delegates: This is the first opportunity I have had of expressing to you my appreciation of the honor you did me in electing me your President-Elect at Spartanburg. I wish to tell you how I appreciate this honor and that I shall try to justify your confidence in me. It has been a great pleasure this past year to meet the physicians of the state while attending the several medical associations, and at those meetings I tried to present the State Board of Health in its true perspective, on the one hand, and the profession of the state, who have been given charge of public-health work.

I have no definite program for the next year except that I should like, with the assistance of the officers of the Association and of you gentlemen, to see if we can not revivify a great many of the county societies which seem to be inactive, due probably to the depression. If possible, I hope to make that the main work during this coming year.

I want to take this opportunity to pay tribute to the fine work of Dr. Abell during this past year and to say how pleasant it has been to be associated with Dr. Abell, with our Secretary, Dr. Hines, and with the Councilors throughout the state. Dr. Hines is a sort of power house in himself, whose services I think we perhaps take too much for granted. Through his manifold activities, day in and day out, he has kept his temper and kept his poise. I think Dr. Hines' work has been most valuable. (Applause.)

Dr. E. A. Hines, Secretary-Treasurer, read his report, as follows:

REPORT OF THE SECRETARY-TREASURER OF THE SOUTH CAROLINA MEDICAL ASSOCIATION

Dr. E. A. Hines, Seneca, South Carolina

The year 1933 was to organized medicine a supreme test of the solidarity of its foundations and ideals. The year brought into the picture to an unusual degree the dependence of the medical profession on the fundamental influences of general economics, as is the case with all classes of society.

For a time it appeared possible that in a financial way, The South Carolina Medical Association was in grave danger of having its entire reserve funds swept away, and its membership reduced by several hundred members. The funds of nearly all the constituent county societies were tied up in banks for one reason or another, which in turn threatened to cripple the activities of the State Association itself.

As the year drew to a close, order was gradually restored to the situation, and on December 31st, the actual paid up roll of members showed a loss of only thirty,—the total being 636.

To meet the impending crisis which arose early in the year, everyone having to do with the financial side of the association was called into conference, and it was explained that it was imperative that salaries, printing costs, stenographic services, travel expenses etc. must be reduced from ten to fifty per cent at once. The cooperation was immediately forthcoming, and as a result the report of the Council to follow shows that deficits ceased, and the year closed with little loss, whereas the year 1932 showed a loss of \$400.02, the first loss for twenty years or longer.

As your secretary I have visited many sections of the State, and endeavored to encourage the profession in standing faithfully by organized medicine, as the only way in which to meet the unusual challenge we were facing on nearly all fronts.

In September 1933, I attended the Secretaries Conference at the A. M. A. headquarters in Chicago, and found the contacts there most helpful and informing, particularly along medical economics lines, which is of such paramount importance to us now. At this conference it was my good fortune, with the consent of President Abell, to arrange for the visit of one of the world's greatest authorities on Medical Economics, who will speak to us on Thursday.

In connection with the program this year and in cooperation with our efforts to reduce maternal and infant mortality in South Carolina, the President has had placed on the program one of the ablest post graduate teachers of obstetrics in America. It is hoped that arrangements may be made to inaugurate

post graduate courses on obstetrics in different parts of the State as a result of this initiative. The secretary has an offer of financial assistance in this project from one of the public health organizations of the State.

So far in the year 1934, the financial status of the Association shows a steady improvement. More dues have been received already than for the entire year of 1933. This shows clearly that just as soon as the doctors began to feel some of the effects of better general economic conditions, they paid their dues promptly including their back dues—some as far back as three or four years. This improved situation has enabled several county societies to reinstate themselves after a lapse of several years. A little more effort right now on the part of the officers will reinstate or bring about a merger of every delinquent society.

The Journal

The Journal of The South Carolina Medical Association, is now in its 30th volume. It has been the chief financial asset of the Association by virtue of the splendid support of the great national ethical advertisers. With the deepening of the depression, the private hospitals withdrew their advertisements, and great advertising firms began to retrench in rapid succession. For a time it looked as if the entire list of advertisers would cancel their contracts—many of them having been with us from the first issue, June 1, 1905. The receipts dropped from nearly three thousand dollars to \$1,376.03. This policy prevailed with nearly every type of journal, magazine, newspaper and other periodicals. There was with all of them, but one way out,—reduce the cost of production and limit out put. While this policy was put into practice, results could not follow as swiftly as contracts were cancelled for advertising space, so some reserve funds had to be used. So far in 1934, the advertisers show a tendency to return, but this will probably be slow. The depression has brought about marked competing phases of advertising over the printed page, such as the radio, the mails and personal visitations.

Notwithstanding this some-what gloomy report on the Journal, it is worthy of note that the service rendered to scientific medicine and to organized medicine has suffered no curtailment whatever. The Journal has published every paper, ever read, before the State Association, that was submitted to it for publication; practically every paper read before district and county societies, and many read before special societies at home and abroad. The Journal has also in recent years, with few exceptions, published every paper submitted by members of the Association. There are only three or four in the office now of this type awaiting publication.

During the depression not a single change has been made in the format, printing or paper, as a result of falling revenues. The number of pages had to be reduced, but not the scientific side of the Journal,

and it will have to be a small Journal for some time to come or until normal conditions reappear. You will be interested in seeing the approximately three hundred page bound volume for the year 1933. The index shows the output of forty-five authors, thirty-two editorials, one hundred fourteen all told, represented among them being eleven well defined specialties. Finally—the Journal has rendered perhaps its most significant service during the depression by keeping in touch with the hundreds of doctors in the State who were unable to keep up their dues, with the expectation that when their financial status improved they would reinstate themselves,—and this is being done as we have previously mentioned in this report.

Of the twelve hundred and ninety two doctors in South Carolina, we carried on our rolls April 1, 1933, eight hundred and sixty-one as credited to us by the American Medical Association. The Journal then has been sent to approximately eight hundred and fifty doctors in the State who are on our rolls of membership. We have been able to satisfy The American Medical Association that these men will pay their dues and we have in this way secured the permission of the American Medical Association to retain their names in the new directory, which on account of the financial situation had to be postponed a year in its publication. It will be off the press shortly.

Finally—The secretary wishes to thank the officers and members of the Association for their splendid cooperation. The problems, as you well know have been of an extraordinary character, and the work of the office has been unusually heavy, but in the language of another—"We are on our way, — Not backward but forward."

REPORT OF AUDITOR

Seneca, S. C.
April 28, 1934

Dr. E. A. Hines, Sec.-Editor,
South Carolina Medical Association,
Seneca, S. C.

Dear Sir:

At your request I have audited the books of the South Carolina Medical Association and the Journal of the South Carolina Medical Association and hand you herewith my report.

I find that an accurate record has been kept of all receipts and disbursements.

While the statement reflects an apparent loss for the year of \$122.58, revenue (Last year \$400.02) creditable to the year 1933, but which was received after the books had closed, would offset this.

Yours truly,

Frances R. Richardson,
Auditor.

COMBINED STATEMENT OF RECEIPTS AND
DISBURSEMENTS SOUTH CAROLINA MEDICAL
ASSOCIATION AND JOURNAL, OF S. C.
MEDICAL ASSOCIATION

For Year Ending Dec. 31, 1933

Receipts

Balance in Banks Jan. 1, 1933	
Defunct Seneca Bank.....	\$1,323.16
S. C. State Bank.....	252.28
Postal Savings.....	1,500.00
	<u>\$3,075.44</u>
Cash on hand.....	200.00
Advertising	1,376.03
Subscriptions	1,147.00
Dues	1,716.00
Interest	22.50
	<u>\$7,536.97</u>

Disbursements

Salaries	2,337.45
Printing	1,399.17
Office Expense.....	99.94
Traveling Expenses Secretary-Editor.....	123.50
Expenses two delegates American Medical Association	180.00
Expenses of Official Stenographer of Convention	90.00
Stamps	14.90
Annual Audit.....	25.00
Sundries	114.15
Cash on hand.....	200.00
Balance in Banks Dec. 31, 1933	
Defunct Seneca Bank.....	\$1,323.16
State Bank.....	629.70
Postal Savings.....	1,000.00
	<u>2,952.86</u>
	<u>\$7,536.97</u>

Assets as of Dec. 31, 1933

Cash on hand and in banks.....	3,152.86
Furniture and Fixtures.....	724.77
	<u>\$3,877.63</u>

STATEMENT RECEIPTS AND DISBURSEMENTS JOURNAL SOUTH CAROLINA MEDICAL ASSOCIATION

For Year Ending Dec. 31, 1933

Receipts

Balance in Banks Jan. 1, 1933	
Defunct Seneca Bank.....	\$1,023.89
S. C. State Bank.....	98.31
Postal Savings.....	750.00
	<u>\$1,872.20</u>
Cash on hand.....	200.00
Advanced by Association.....	100.00
Subscriptions	1,147.00
Advertising	1,376.03
Interest	20.00
	<u>\$4,715.23</u>

Disbursements

Salaries	\$1,895.75
Printing	925.00
Office Expense.....	65.90
Traveling Expenses Editor.....	116.60
Sundries	80.75
Annual Audit.....	25.00
Cash on hand.....	200.00
Balance in Banks Dec. 31, 1933	
Defunct Seneca Bank.....	\$1,023.89
S. C. State Bank.....	382.34
	<u>1,406.23</u>
	<u>\$4,715.23</u>

STATEMENT OF RECEIPTS AND DISBURSEMENTS SOUTH CAROLINA MEDICAL ASSOCIATION

For Year Ending Dec. 31, 1933

Receipts

Balance in Banks Jan. 1, 1933	
Defunct Seneca Bank.....	\$ 299.27
S. C. State Bank.....	153.97
Postal Savings.....	750.00
	<u>\$1,203.24</u>
Membership Dues.....	1,716.00
Interest	2.50
	<u>\$2,921.74</u>

Disbursements

Salaries	441.70
Office Expense	34.04
Stamps	14.90
Expenses two delegates to American Medical Association.....	180.00
Traveling Expenses Secretary.....	6.90
Expenses Official Stenographer of Convention	90.00
Advanced to Journal.....	100.00
Sundries	33.40
Printing	474.17
Balance in Banks Dec. 31, 1933	
Defunct Seneca Bank.....	\$ 299.27
S. C. State Bank.....	247.36
Postal Savings.....	1,000.00
	<u>1,546.63</u>
	<u>\$2,921.74</u>

LIST OF MEMBERS BY COUNTIES 1933

	Paid	Hon.
Abbeville	9	2
Aiken	10	
Anderson	31	4
Allendale	1	
Barnwell	5	
Bamberg	7	
Berkley	6	
Beaufort	1	
Charleston	85	7
Cherokee	6	
Chester	9	4
Colleton	8	4

Chesterfield	6	
Columbia	89	16
Darlington	8	
Dorchester	4	
Edgefield	3	
Florence	17	1
Fairfield	2	
Greenville	79	9
Greenwood	15	
Georgetown	2	
Hampton	2	
Kershaw	14	
Laurens	5	6
Lexington	3	2
Marlboro	8	1
Marion	5	
Newberry	19	1
Oconee	9	4
Orangeburg	13	
Pickens	11	
Spartanburg	34	2
Sumter	13	4
Saluda	4	
Union	10	2
York	16	3
	566	72
Honorary Fellows.....	72	
	—	
Total Membership.....	638	

REPORTS OF COMMITTEES

Dr. S. E. Harmon, Chairman of the Council, reported as follows:

Your Board of Councilors met this afternoon, with all members present. Reports were had, and the general trend of things seemed, as Dr. Hines has given you in his report, improving over last year. The report last year gave us around \$400 deficit; and, as he has read to you this evening, we are now about breaking even, with a larger paid up membership. In a great many instances our members have paid for two or three years that they were in arrears.

I hold in my hand the financial reports of both the Journal and the Association, which I shall not burden you by reading. They have been audited, approved, and checked by the Council and found to be correct.

Nothing out of the ordinary came up before the Council. It was the Council's general consensus of opinion that we need a more active effort toward constructive organized medicine, especially as a large percentage of men who are eligible to become members of organized medicine are not members. We feel that unless there is a concerted effort for the protection of organized medicine, as well as our people, we are headed to some place we do not know where.

I think that is all.

The President called for the report of the Committee on Medical Economics. Dr. J. W. Jervey, Chairman of the Committee, read the following report, which, on motion of Dr. F. M. Lander, was adopted, and also read a letter from Dr. J. Moss Beeler, a member of the Committee.

Report of Committee on Medical Economics, South Carolina Medical Association Annual Meeting Charleston, S. C., May 1, 1934

Mr. President: Your Committee on Medical Economics met in Columbia early in October 1933. Present were Dr. Robert Wilson, Dr. J. Adams Hayne, Dr. Douglass Jennings and Dr. J. W. Jervey, Chairman. The committee had invited Dr. E. A. Hines to be present at our deliberations and he accepted and was present. After a discussion of approximately two hours it became thoroughly understood that the movement by the Federal Government to undertake economic responsibility for the medical care of indigents was well under way towards operation and that this movement would fully care for the retention of the "personal relation," and the preservation of the individualism of the general practitioner. This of course will eliminate a large part of our problem. Now that the indigent will be cared for through taxation by Government activity and the employment of individual physicians by the Government, the only thing left on our hands is to make provision for the man with some income to be compelled to lay aside a certain small proportion of his income for the purpose of medical care for himself and family.

In both of these major problems your Committee feels that it can do no better than to recommend the adoption of the Minority Report of the Committee on the Costs of Medical Care, who studied these matters over a period of several years and with whose reports Majority and Minority, most of you are already familiar.

We, as a Committee, therefore recommend that this committee be discharged and that another committee be appointed to study and recommend a means for putting into operation some plan of compulsory health insurance for families of small income.

We believe that the adoption of the above plan will go as far as anything else towards obviating the necessity of any consideration for the institution of so-called "State Medicine."

In the meantime the Committee calls attention to the fact that another branch of this association is at present actively engaged in arriving at an agreement with Federal authorities for the compensation of physicians undertaking the care of the indigent sick.

Respectfully submitted,

Robert Wilson
James A. Hayne
Douglass Jennings
J. Moss Beeler, M.D.
J. W. Jervey, M.D., Chairman

April 21, 1934

Dr. J. W. Jervey
Dr. Jervey's Private Hospital
Greenville, South Carolina

I have signed the paper and am returning it to you as requested.

I would like to call your attention to the fact, though, that the Government is not assuming responsibility for all indigent sick. They are not taking care of and are making no attempt to do anything but take care of emergency cases. You might talk with the Administrator in Greenville before the report is turned in.

Yours very truly,
J. Moss Beeler, M.D.

Dr. J. W. Jervey offered the following motion: That the previous resolution passed by the House of Delegates, referring every committee report to the Council for their pleasure as to what action they may take on it and how they will report it to the House of Delegates, be rescinded.

This motion was seconded.

Dr. K. M. Lynch, of Charleston, made the point of order that Dr. Jervey's motion is out of order at this time, the immediate business being the hearing of reports, and that it should come up under the head of either new business or miscellaneous business; and the Chair so ruled.

The report of the Committee on Scientific Work was next called for, and Dr. Kenneth M. Lynch, Chairman, presented the program of this meeting as the report of his committee.

Dr. William Egleston, Chairman of the Executive Committee of the State Board of Health, read the following report, which, on motion of Dr. R. G. Doughty, was accepted with the thanks of the Association for the good work done:

Report of State Board of Health

To the House of Delegates of
The South Carolina Medical Association.
Gentlemen:

This is the 55th annual report of the Executive Committee of the State Board of Health of South Carolina.

The staff of the Executive Committee of the State Board of Health consists of the following departments:

Administrative: Under this come the State Health Officer, his secretary, the bookkeepers, two engineer inspectors, the midwife supervisor, and an epidemiologist. On January 1, 1934, the position of epidemiologist was abolished by the General Assembly, therefore we have had no epidemiologist since January 1st. The work formerly done by the epidemiologist has been carried on by the State Health Officer, assisted by Dr. C. C. Applewhite, of the U. S. Public Health Service.

Bureau of Rural Sanitation and County Health Work: Dr. Ben F. Wyman, director, and his secre-

tary. This work is carried on in twenty-three counties of the State, the counties of Marion and Lexington having no county health officer but a nurse in each county. A vigorous effort was made to obtain enough money from the Legislature to enable each county to have as a basis for its county health department \$1500.00, and to place the health work on an equal footing in each county with farm demonstration and home demonstration work. It was proposed that if a county did not appropriate sufficient money itself to have a county health department, to combine the different counties into districts so that county health work might be done in every county in the State. This plan was approved by the Senate by a three to one vote but the Free Conference did not have sufficient revenue to appropriate for the same. However, the amount appropriated for county health work was raised from \$18,500 to \$32,000 for the fiscal year beginning July 1st. In addition to that, \$8,000 has been obtained from the U. S. Public Health Service, and we hope to obtain approximately \$13,000 from the NERA for the coming year. This will give \$53,000 to carry on this work. We believe it has been largely due to the county health work in the various counties that the death rate in South Carolina has been lowered to an appreciable degree. In 1920, we had eight county health departments and in 1928 we had twenty-four. Excellent work has been done in all the counties and we are justly proud of the record shown. Dr. Wyman has been in charge of this department since 1926 and has shown great zeal and energy in directing the work of this department.

Laboratory Department.—This was our first department and was founded in 1908. Its work has been continuously increased. Dr. H. M. Smith and Mr. Cain, the two technicians, Mrs. Dickey and Mr. Parker, and Miss Davis, the secretary, are the entire force of the laboratory. Mr. Cain has been with the State Board since 1911, and is painstaking and efficient in his work. The report for this year shows an enormous amount of work done. Approximately 1800 people have received rabies treatment in 21 doses each from this laboratory during the past year. 250 to 300 Wassermanns and Kahns are done daily, and miscellaneous specimens of all sorts are daily received. This laboratory is of inestimable benefit to the physician and his patients. It is meagerly provided for by the State, and it deserves and should receive the wholehearted support of the medical profession.

Bureau of Vital Statistics, founded in 1915, has always made an excellent record for accuracy in the recording of births and deaths. South Carolina was put in the U. S. Registration Area for Deaths one year after the bill was passed creating the Bureau of Vital Statistics, which is a record held by no other vital statistics department in the United States. It was put in the Registration Area for Births in 1919, but owing to the lax reporting of births, was taken out of the Area in 1926. It was re-

stored in 1928. We were very fortunate in securing the services of Dr. M. B. Woodward in this department. Dr. Woodward was trained at Johns Hopkins for a year in vital statistics work through a scholarship from the Rockefeller Foundation. Dr. Woodward had been county health officer for two counties (Lexington and Aiken), and is thoroughly familiar with the physicians of the State. He is, however, going to endeavor to meet with them as often as possible, and also to meet with the registrars in the various counties so as to have a more effective system of registration. Dr. Woodward's salary is paid by the Rockefeller Foundation.

We regret deeply to report the death of Mr. C. W. Miller, who was the father of the Vital Statistics Department. He was very proud of his offspring and did everything to make it efficient. He practically sacrificed his life in this work, as he worked in season and out of season.

This Department shows that there were the following figures for maternal and infant mortality for the years 1928 to 1933, showing a very gratifying drop in maternal mortality, and, although this year was slightly higher than last year, a corresponding drop in infant mortality:

	1928	1929	1930	1931	1932	1933
Maternal: -----	10.9	11.4	11.4	10.2	9.4	7.8
Infant: -----	97.	91.	89.	81.	77.	80.

The vital statistics is the bookkeeping department of a Board of Health, and by it we are able to show whether the work of the department is successful or not. Of course, the main object of a board of health is to reduce the death rate and to check the spread of communicable disease. That the Board of Health has done this is shown by the figures of the year 1915, our first year of vital statistics, as compared with the figures of 1933. In 1915 the death rate was 15.4; in 1933, it was 11.1. The Executive Committee of the State Board of Health can therefore show the efficiency of the work done by its staff in quoting the above figures.

The Bureau of Child Hygiene was discontinued a year ago, but Miss Laura Blackburn, who is midwife supervisor for the State, continues to see to it that these midwives are kept up to the mark. We believe that the lowering of the maternal death rate is largely due to the teaching of these midwives. They are taught to keep clean and not to interfere in any way with the births but if in doubt at all or the labor lasts an undue length of time to call in a physician.

The sum of \$31,000 was given by the General Assembly for the distribution of diphtheria antitoxin, vaccine virus and meningitis serum, for 18 months. This next year we have \$29,250 for 12 months. Typhoid bacterin was given free in counties where there was an epidemic of typhoid and where the doctors agreed to give the treatment free of charge. Otherwise it was sold at cost. Toxin-Antitoxin and toxoid have been used considerably in the State this year, especially the one dose alum precipitated toxoid. Several extensive campaigns have been carried on,

notably in Charleston. We believe if a general campaign throughout the State to inoculate children under five years of age with toxoid could be instituted, we could soon do away with furnishing diphtheria antitoxin in large quantities.

In summing up the work of the State Board of Health for the past year, we would say that it has functioned well, and each and every member of the staff has done his full duty in the position and activities to which he has been assigned.

It is with deep sorrow that we report the death of Mr. Ellison Capers, who was our Hotel Inspector and who efficiently served the State in that capacity for the past five years. He was killed in an automobile accident while in perfect health and in the full vigor of manhood. He leaves a widow and two children. Mrs. Edith S. Anderson was elected in his place. Mrs. Anderson has served in this capacity since December 1st, and the reports that we receive of her activities seem to indicate that she is doing her work well.

At the earnest solicitation of your Executive Committee, the Legislature appropriated sufficient money to send a printed copy of the proceedings of the Board to each physician in South Carolina, as well as to the members of the Legislature who have always had them. In this report is set forth all the transactions at the meetings of the Executive Committee, and practically all the activities and reports of the various Bureaus and officials.

W. Eggleston, Chmn.

The report of the Special Committee on Federal Emergency Relief was next called for, and the following report was read by Dr. S. E. Harmon, Chairman of the Committee, and accepted, the President thanking the Committee for the work done:

Report of Special Committee on Federal Emergency Relief

Dec. 13, 1933.

Mr. Chairman and Members of
The South Carolina Medical Association:

Your Special Committee on the Federal Emergency Relief Administration consisting of Doctors W. R. Wallace, J. C. Buchanan and Samuel E. Harmon, appointed by your President, beg leave to make the following report:

As soon as this Committee was created, we met in Columbia with Dr. R. E. Abell, President, and Dr. E. A. Hines, Secretary, organized and immediately began seeking all the information possible in order that we might intelligently study the problem of working out the best plan of rendering home care to the unemployed indigent sick as directed by the rules and regulations outlined by the Federal Government in Washington. (The bulletin directing the work is known officially as Bulletin No. 7.)

After securing all the information possible, we endeavored to arrive at the most practical plan whereby the organized medical profession could render home service to these people. No provision was

made for the hospitalization or the care of any one in a hospital.

After a most careful consideration of all the facts with reference to the Medical Profession and the patients, we worked out a pay schedule that we felt would about cover the actual cost of caring for these people. This schedule was submitted to the authorities in Washington, D. C., which was mandatory, for their approval, which was revised, reduced and returned. After much work, many meetings and much correspondence, we finally secured from the authorities in Washington, D. C. a schedule of fees which we felt would just about reimburse the medical profession's actual expense. Your Committee was deeply conscious of the fact that this was a very small remuneration for such service, but it was the very best we could secure.

Through our Secretary, Dr. E. A. Hines, who willingly consented to perform all the clerical work, we sent out to all Councillors of every district and to each secretary of every component county society all information that we possessed, including the fee schedule as set up by your Committee and approved by the United States Government.

After much correspondence and many harsh criticisms from the profession in various sections, your Committee again met with the officers of the State Association and after mature consideration decided to call an extra meeting of the Board of Councillors who constitute the executive head of the Association, to pass upon the work of your special committee. This meeting was held in Columbia, S. C. at the Jefferson Hotel, and after a careful study of all the facts, the Board of Councillors went on record approving the work of the committee.

Subsequently we learned that the work as planned was not as efficiently and satisfactorily carried out as we had hoped due to the fact, we think, that the medical profession did not have the opportunity of studying all phases connected with the work, hence many misunderstandings. Also the local directors and social workers in many instances were not in possession of all the many details, as they might have been. At this point candor compels us to say that in our humble opinion sporadically local politics crippled and in some instances defeated the work very materially in many ways, the details of which we will not burden you with. Suffice it to say that this Committee would urgently recommend to the entire medical profession of the State that we diligently strive to build up a larger, more powerful constructive organization for the future protection of our people.

Respectfully submitted,

Samuel E. Harmon, M.D., Chmn.

Columbia, S. C.

May 1st, 1934.

The report of the Committee on Public Policy and Legislation was read by Dr. Roger G. Dougherty, Chairman, as follows:

Report of Committee on Public Policy and Legislation

April 28th, 1934.

The last meeting of the South Carolina Legislature was relatively a quiet one when viewed from the standpoint of the Medical Profession. The bill for the creation of a State Board of Examiners for nurses was defeated. On the other hand a bill designed to bring the South Carolina State laws governing the use of narcotics into uniformity with the Federal laws and the laws of other states was passed. Through the good work of your secretary, Dr. Hines largely, this last bill mentioned was gotten through in the closing days of the Legislature.

Two or three rather dubious bills were killed in the committee and never got to the floor of the House or Senate.

Through efforts of your State Legislative Committee members of Congress were approached by various of the County Societies regarding the Federal Veterans Hospital laws. The American Medical Association has been quite active in an effort to limit the hospitalization of Veterans at government expense to those who have a so called service-connected-disability, that is a disability incurred in service and to prevent hospitalization at government expense of those Veterans having disability in no way connected with their service and who stand in no need of charity.

On January 5th, 1934 the State Committee wrote to each County Society asking that each society express its view on this matter directly to all of the South Carolina Congressmen. It is rather interesting to note the replies from members of Congress to at least one of the societies.

Senator E. D. Smith on March 30th, 1934 acknowledged the receipt of this society's letter and thanked the society for its views.

Congressman H. P. Fulmer on April 9th, 1934, did not know of any "Legislation pending at this time with this particular matter." On March 28th, 1934, the bill had been passed over the President's veto. The Congressmen had been written to on March 12th, 1934.

Senator James F. Byrnes wrote this County Society on March 31st, 1934, that the bill had been passed over the President's veto and informed them that he had voted against the bill and to sustain the President's veto and enclosed a copy of the bill. The other members of Congress did not reply to this particular County Society.

Respectfully submitted,

Roger G. Dougherty,

J. W. Jervey.

On motion of Dr. W. P. Timmerman, the thanks of the Association were extended to the Special Committee on Federal Emergency Relief and to the Committee on Public Policy and Legislation.

The President next called for the report of the Committee on Health and Public Instruction, and the

following report was read by Dr. W. L. Pressly, Chairman, and, on motion of Dr. F. M. Lander, was adopted:

Report of Committee on Health and Public Instruction

A few weeks ago when I was asked to act as chairman of the committee on Public Health my first impulse was to decline the honor. I at once sent out a hurry call to Dr. Hayne asking his advice as to the most urgent need of our state in Public Health work. I next made an attempt to study the trend in Public Health at large and also from the need of the smaller communities of our state. I will not endeavor in this paper to make a long report on Public Health affairs, but to make a few recommendations as to the needs in our state. I do not believe there has ever been in the history of the world as much agitation as to Public Health as there is at present. Some of it is most excellent and some is of doubtful value. It should be the policy of our State Medical Society to see that our people receive instructions along the right lines. How can this be accomplished? At the outset I wish to say that from my personal contact the work done by our State Board of Health is par excellent. I have received the most whole hearted cooperation from Dr. Hayne and his associates when ever it was in their power to render aid and this leads me to my first recommendation.

It is the duty of every doctor to inform himself as to the great handicaps under which Dr. Hayne labors due to lack of funds. Well do I realize that the cry is to lower appropriation and taxes. Taxation has been a great problem since Caesar Augustus first decreed that all the world should be taxed, but can we who are intrusted to safe-guard the life of our people allow the appropriation to fall short of the adequate provision for our State Board of Health. We should inform ourselves as to the need and bring pressure to bear on our Senators and Representatives. We do not believe in extravagance in our health work but surely the appropriation should meet the need of a first class Health department.

Our infant mortality of 80 per 1,000 is the highest of any state in the union. Our maternal mortality of 7.5 per 1,000 is entirely too high. There are only two states that have a higher maternal death rate: North Carolina and Florida. These are facts which are alarming and must be faced and corrected by the State Medical Association. Just where the blame should be placed I am unable to say, but I am inclined to think that it is not the fault of the Mid-wife or the fault of those of us who practice Obstetrics. I am inclined, however, to place the blame on the ignorance of the mothers themselves, and surely we are held responsible and accountable for their lack of knowledge as to the proper care of themselves during pregnancy. I am sure the vast majority of Obstetrical catastrophies have been due to ignorant neglect of the mother during the early months of

pregnancy, and we find ourselves face to face with some serious complications. I wish I were able to give the percentage of Maternal deaths due to Toxemias and mechanics of Labor. How we are to correct the alarming facts I do not know, but surely we must give it our most earnest and mature thought. This seems to us a problem which must be handled by the General Practitioner through an educational program, aided by our State Board. The radio and press do not reach the class where help is most needed.

The trend of Public Health work especially in the middle West is to have the general practitioner take more interest in preventive medicine and apply it to his own practice rather than turning every thing over to the Health officer. A report of the plan worked out in Detroit is fully explained in the current issue of our State journal. The doctor has been the Health educator ever since there were doctors or at least until the time when changes in the medical practice began to crowd the Family Doctor out of the picture in favor of the specialist. In this great branch of preventive medicine, "The field is white unto the harvest," and surely there is much work to be done which can only be accomplished by the doctor and the public health department working in harmony. There can and should not be any possibility of friction between the doctor and health department where there is a clear understanding as to where each one's duties and responsibilities start and stop. There is no surer Medical suicide than for a doctor to stop showing a vital interest in matters of Public Health where the lives of his patients are concerned.

The real problem which confronts the Medical Society in regard to Public Health is that of the smaller communities. The cities and the larger towns have their local boards of health and with the aid of the State Board their needs are well taken care of. It becomes the duty of the doctor in our smaller communities to assume the leadership in all matters which pertain to Public Health. We must keep alive to these questions for our patients are awakened as never before in regard to matters of health, and we must be able to answer their questions intelligently and satisfactorily. We hope that in the near future some plan may be worked out whereby the doctor may receive some remuneration for these things which draw so heavily upon his time.

We have tried to set forth only a few things in this report which seem of most importance to us—namely:

1. Our duty to the State Board of Health in seeing that they have sufficient funds to carry on the work in a worthy manner.
2. The alarming Maternal and Infant mortality rate in our State.
3. The doctor's responsibility as a Health officer in our small towns and communities.

W. L. Pressly, Chairman Com.

The President stated that the report of the Board of Medical Examiners had been made to the Council and that no report would be submitted at this time.

President Abell next called for the report of the Delegates to the American Medical Association, which report was read by Dr. J. H. Cannon, and, on motion of Dr. K. M. Lynch, was adopted.

Report of Delegates to the 84th Annual Session of the A. M. A. Held at Milwaukee, Wisconsin June 12 to 16, 1933

The 84th Annual Session of the American Medical Association held at Milwaukee, Wisconsin June 12 to 16, 1933, was remarkable in several respects. It was hoped that in spite of the depression that there would be a large meeting, and although the registration fell short of the figures hoped for, it is gratifying to note that there was a total registration of 4,601. This figure is augmented by the families of many of the physicians and probably a fair number of members who failed to register.

The scientific exhibits at this meeting have probably never been exceeded both in number and scientific value, also the commercial exhibits were exceptionally large and as usual well attended. The membership as of April 1, 1933, was 97,111 and the number of fellows 62,495, both figures being somewhat lower than last year, the loss being attributed almost entirely to the depression. The financial condition of the association is sound, although its income has been materially reduced, while on the other hand demands on the various departments were greater than ever before; and though the usual high standard of service has been maintained, this has been accomplished in spite of a reduction both in salaries and personnel. Most of the special journals showed losses the total amounting to over \$30,000 for the year, a decrease in advertising income amounting to \$122,244.56, a loss of income from dues and subscriptions the decrease being \$61,060.53. This loss in income seems to be a reflection of what has happened to membership dues and medical journalism in general. It is interesting to note that the number of doctors receiving the journal in South Carolina was reported to be 470 or only 36 per cent of the 1292 doctors living in the State. The number of fellows was only 316 a net loss of 10 for the year. This is greatly to be regretted because fellowship in the Association is such a simple matter for a member in good standing of the State Association and is taken as an indication of his interest in organized medicine. The total membership of the South Carolina Medical Association as reported by the American Medical Association April 1, 1933, numbered 861. It should be noted that in order to maintain the ratio of membership to the State Delegation, South Carolina is perilously near the point of losing one of her delegates. The reapportionment of delegates will be made again for a period of three years at the Cleveland Meeting in June. Every effort has been made by the officers of the South Carolina Medical Association and the component County Societies to keep

our membership to the point where we will continue to be entitled to two delegates. The report of the Board of Trustees points with pride to Hygeia, one of the special journals of the American Medical Association just ten years old, that in spite of the depression has been remarkably successful and instead of losing money as in the past showed a balance of \$18,768.62 over costs of production due to increased subscriptions and advertising.

The package library service of the American Medical Association whereby members may borrow books and periodicals for an exceedingly nominal sum thus rendering the facilities of an excellent library to their members regardless of how remote their location may be has expanded so rapidly that 2,508 packages were loaned out during the past year. This is now one of the largest services of the American Medical Association to the individual member. It assists him in the preparation of manuscripts and in the practice of medicine. The entire fifth floor of the American Medical Association Building is now devoted to the library service. 1300 periodicals gathered from all parts of the world are abstracted for the benefit of the members of the American Medical Association. This organization quietly but effectively carries on by means of research awards a considerable investigation service along many lines and its grants amount to many thousands of dollars. The judicial council repeated its definition of contract practice and clarified the term in its amendment of the principles of medical ethics. It recognizes that there are certain localities in which some form of contract practice is necessary however, it has pointed out in the amendment the general principles involved in contract practice. It is believed that such clarification will prove very helpful in many sections of the United States. The House of Delegates approved the stand of the Minority Committee's report on the cost of medical care.

Resolutions were offered from New York that the American Medical Association take up the study of ways and means of bringing about a limitation of medical graduates. No action was taken on the resolution but the Council on Medical Education advised that the American Medical Association undertake to inform the public that the profession is over crowded and to enlist the cooperation of the high schools and colleges, and the Association of American Medical Colleges to bring about a reduction in the number of applications to medical schools.

An exhaustive report on hospitalization of the mentally ill in the United States was presented to the House of Delegates for the first time. Such a study appears to have a bearing on the question as to whether or not there has been an increase in the number of cases of the mentally ill during the depression years and on the facilities for taking care of them. This was a special report of the Council on Medical Education and Hospitals ordered by the House of Delegates in 1930. The Reference Committee on Medical Economics approved of extensive

studies being made by the Bureau of Medical Economics of contract practice and other forms of changing practices such as group practice, group hospitalization, and so on. This special committee looked with favor on the proposal to teach medical economics in the medical school, but urged that only competent instructors be employed. Our delegates noted that the Bureau of Medical Economics of the American Medical Association of which Dr. R. G. Leland (who is to be a guest at this meeting of our association) is director, has made unusual progress in the study of nearly all phases of medical economics and that this is now one of the great bureaus of the American Medical Association with tremendous responsibility which it is meeting with courage tempered by a broad outlook on the numerous problems involved.

Although recommended by the Reference Committee on Public Health the House of Delegates turned down a resolution to the effect that the American Medical Association appoint a special committee on the study of contraception. This is the second time in recent years that this proposal has been rejected.

Dr. W. L. Bierring of Des Moines, Iowa, was elected President-elect, of the American Medical Association, Dr. John H. Musser was elected Vice-president, Dr. Olin West was elected Secretary, Dr. Herman Kretschmer was elected Treasurer, Dr. F. C. Warnshuis was reelected Speaker of the House, Dr. M. B. Van Etten was elected Vice-speaker, Dr. A. A. Hayden of Chicago was elected to the Board of Trustees as was Dr. C. B. Wright of Minneapolis. Cleveland was selected as the city for the next place of meeting.

Respectfully submitted,

J. H. Cannon.
E. A. Hines.

The following report of the Committee on Necrology was read by the Chairman, Dr. D. D. Strauss, while the members of the House of Delegates stood in respect to the memory of the deceased:

Report of the Committee on Necrology

We pause for a moment in silence and pay tribute to the memories of those of our number who have passed on since last we met together. We shall miss them at our annual gatherings. They have served their several communities faithfully to the end. Some of them have won enviable reputations not only in this state but beyond its borders. All of them have been honored members of the South Carolina Medical Association. Their names follow:

1. Dr. Andrew A. Horger, Horleyville, S. C.
2. Dr. Henry William Rice, Columbia, S. C.
3. Dr. William McCullough Lester, Columbia, S. C.
4. Dr. W. D. Senn, Newberry, S. C.
5. Dr. W. A. Oxner, New Brookland, S. C.
6. Dr. W. M. Long, Liberty, S. C.
7. Dr. Henry Perry Jackson, Charleston, S. C.
8. Dr. William Henry Johnson, Charleston, S. C.
9. Dr. R. E. Hughes, Laurens, S. C.
10. Dr. B. G. Gregg, Florence, S. C.
11. Dr. W. L. Whitehead, Lake City, S. C.
12. Dr. W. C. Black, Greenville, S. C.
13. Dr. C. A. McLurkin, Chester, S. C.
14. Dr. R. E. Thompson, Inman, S. C.
15. Dr. James Calhoun Harris, Anderson, S. C.
16. Dr. James Maxwell Hobson, Belton, S. C.
17. Dr. H. R. Black, Spartanburg, S. C.
18. Dr. Joe Harry, Hampton, S. C.
19. Dr. Russell, Barnwell, S. C.
20. Dr. M. E. Ellis, Hampton, S. C.

The Committee on Necrology

Dr. D. D. Strauss, Chairman, Bennettsville, S. C.
Dr. D. J. Barton, Anderson, S. C.

DRUG ADDICTS

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A hospital for the diagnosis and treatment of neuro-psychiatric diseases.

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E. S. Valentine, M. D.
Medical Director

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Columbia, S. C.

Mrs. J. W. Babcock
Superintendent

Dr. J. M. Settle, Great Falls, S. C.

Dr. G. T. Tyler, Jr., called attention to the death of Dr. William H. Welch, of Baltimore, Md., and offered the following motion:

That this Association, in convention assembled, send a telegram of condolence to the President of Johns Hopkins University, expressing our regret at the passing of Dr. Welch.

This motion was adopted by a rising vote, and Dr. Tyler was appointed by the President to send the telegram.

NEW BUSINESS

The President called for invitations for the 1935 meeting of the Association. Dr. James McLeod extended an invitation to hold the next annual meeting in Florence, which invitation was accepted.

Secretary Hines said that he had had a letter inviting the Association to meet in Columbia, and Dr. T. A. Pitts, of that city, said that Columbia would be glad to have the meeting held there.

Dr. F. M. Lander spoke of the absence of Dr. W. A. Tripp, who is ill in Anderson, and said that Dr. Tripp sent a message of love and regards and of regret that he could not attend this meeting. Dr. Lander suggested that a telegram be sent to Dr. Tripp, and the President asked him to send a telegram of condolence.

Dr. Douglas Jennings moved that the Association send a telegram of regrets, esteem, and best wishes to Dr. F. H. McLeod, of Florence. This motion was carried, and the President appointed Dr. Jennings to send the telegram.

(Continued to Next Month)

RIDGE MEDICAL SOCIETY MEETS

The Ridge Medical Society held its regular bi-monthly meeting in its usual meeting place with a good attendance.

Interesting clinical reports were made by Drs. Timmerman, Brogden, and Hanna, Asbill and Balinger.

Dr. E. P. Taylor, (Dentist), gave an instructive address on impacted wisdom teeth and allied conditions.

Dr. Geo. Truluck of Orangeburg gave an instructive address on nose and throat conditions with special emphasis on faulty examinations and diagnosis.

These reports and addresses elicited much discussion with reports and illustrations of unusual conditions by most of those present.

Supper was served in The Rutland Hotel where short witty speeches were made by Drs. Asbill, Ergle, Hanna, Truluck and Ridgell.

The Ladies Auxiliary had an interesting and well attended meeting in the home of Mrs. W. P. Timmerman.

W. P. Timmerman, Secretary.



TWIN responsibility FOR THE DOCTOR

It is to her doctor that the mother looks—not only for her own well-being—but that of her child.

During pregnancy her own bones and teeth must be safeguarded; but so also must be the developing bones and teeth of the little newcomer. This is the doctor's twin responsibility.

It is a grave responsibility—and a vitally important one. The mother's diet, during pregnancy and lactation, must be—

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COLUMBIA MEDICAL SOCIETY

The first regular monthly meeting was held at Forest Lake Club, Columbia, S. C., at 8:30 P. M., Monday, June 11, 1934.

Program

Call to order.

Reading of minutes.

Clinical cases.

Remarks on the diagnosis and treatment of diseases of the Larynx, Trachea and Bronchi.

(a) Laryngeal Tuberculosis. Chronic Laryngitis. Syphilis of the Larynx. (Colored Lantern Slides).

(b) Cancer of the Larynx. (Colored Lantern Slides.)

(c) Laryngectomy for Cancer of the Larynx. (Moving Pictures).

(a) Foreign Bodies in the Bronchi and Esophagus. (Moving Pictures).

(b) Endoscopic Diagnosis of Diseases of the Chest. Lung Mapping. (Lantern Slides).

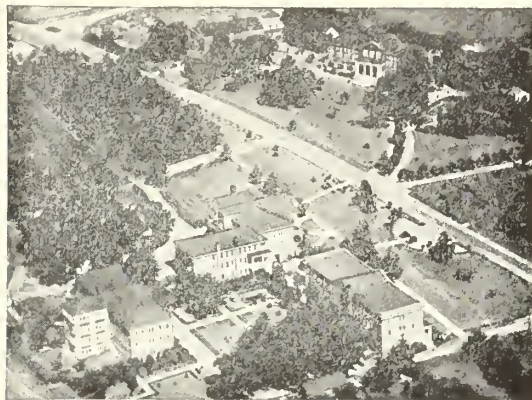
(c) Treatment of Suppurative lesions in the Bronchi and Lungs. (Moving Pictures.)

By Dr. Edward A. Looper, Baltimore, Maryland.

Announcements.

Adjournment.

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THE JOURNAL

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Loose Stools in Infants

require extra diapering, and inconvenience the mother

Clinically, loose stools are accompanied by a dehydration which, when excessive or long continued, interferes with the baby's normal gain. A long-continued depletion of water is serious, since "the fluid requirements of an infant are tremendous. A normal infant 15 pounds in weight will frequently excrete as much as one litre of urine per day. A negative water balance for more than a very short period is incompatible with life." (Brown and Tisdall)

Moreover, when the condition is superimposed by chance infection, the delicate balance may be seriously upset, since the infant's reserves have already been drawn upon, so that resistance to infection and dangerous forms of diarrhea may be too low for safety. Every physician dreads diarrhea, which Holt and McIntosh call "the commonest ailment of infants in the summer months."

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But, Doctor—his feelings would be nothing to yours if *you* could listen in—and hear the light-hearted way those ladies toss medical advice about!

And when the talk turns to infant feeding—how they love to trade their pet prescriptions! For some strange reason, almost everybody enjoys meddling with the feeding instructions a young mother gets from her physician.

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EDITORIAL

FOUNDER'S DAY, MEDICAL COLLEGE OF THE STATE OF S. C.

On November eighth the State Medical College will inaugurate its annual Founder's Day celebration. It was a century and ten years ago, Nov. 8, 1824, that, "The Medical College of South Carolina" held its first opening exercises followed by a week of introductory lectures, each occupying a morning and attended not only by students but by a large number of "literary and scientific gentlemen."

The program of the days exercises will consist of a series of clinics by the Faculty during the morning and afternoon, and a Founder's Day Lecture, to be delivered at an evening dinner by Dr. Stewart R. Roberts of Atlanta, Georgia.

A large gathering of alumni of the College and of other physicians of the State, as well as representatives of the medical and educational institutions of this and other states, is contemplated.

We have been impressed with the growing tendency in medical circles throughout the country to provide clinics at the Medical School and elsewhere for one or more days each year open to the entire profession of the State. We wish to commend this plan now to be inaugurated by our own splendid medical school, aside from the special interest in Founder's Day.

We believe that the Medical College of the State of South Carolina occupies a peculiar niche in the affections not only of the profession but of the people of this state.

The high class instruction carried on there is known throughout the country as being worthy of special commendation. We bespeak a large attendance of the medical men of South Carolina regardless of where they graduated on November 8 to show their appreciation of one of the outstanding institutions of this country. We will publish from time to time in more detail the program to be followed on Founder's Day.

DEATHS OF DRS. A. E. BAKER, P. V.
MIKELL AND OSCAR LaBORDE

Just as we are going to press we have learned of the deaths of three of South Carolina's most prominent physicians and most loyal members of the South Carolina Medical Association. Proper tributes will be paid to these distinguished members in due course of time. We wish to record an expression of our profound sense of loss in the passing of these men and our deepest sympathy to their respective families and their large circles of friends.

EAST CAROLINA AND SECOND
DISTRICT MEETINGS

Notwithstanding the intense heat in recent weeks two of our most progressive medical societies held enthusiastic meetings, one at Myrtle Beach and the other at Batesburg. The attendance was good at both of them and the programs of more than ordinary interest. The East Carolina program was honored by the names of several men of Southwide reputation from other states. Many of the officers of the State Medical Association were present at both of these meetings.

PRELIMINARY PLANS FOR FLOR-
ENCE MEETING, 1935

President William Egleston has been very active in making plans for the next meeting of the Association at Florence. He called together recently officers of the Association and representatives of the Florence Medical Society to consider the arrangements and scope of the program for next year. The following committee on Scientific Work has been appointed and at a later date will receive titles of papers:

Dr. W. R. Mead, Chairman, Florence, S. C.

Dr. James McLeod, Florence, S. C.
Dr. Julian P. Price, Florence, S. C.

THERAPEUTICS

Elsewhere in this issue there is an admirable paper on the use of drugs by Dr. J. H. McIntosh a past President of the South Carolina Medical Association. This paper has been brought up to date by the author.

We should have more papers on the use of drugs, and medical societies should find a place on their programs for them from time to time. The American Medical Association has done a wonderful work in keeping before the profession the results of the investigations of drugs and other therapeutic measures by the Council on Pharmacy and Chemistry. The Laboratories of the A. M. A. at the Headquarters Building have no superior investigators anywhere in the world. Every doctor should have on his office table a copy of New and Non-official Remedies put out by the Council. If so, he will find that just because a remedy is new is no reason why it should displace an old and tried remedy. It is quite a commendable plan for the practitioner to await the investigations from a clinical standpoint by proper authorities such as our own A. M. A. Laboratory of all new remedies. This does not mean that initiative on the part of the private practitioner is to be throttled but at least it is a safe plan.

The A. M. A. publishes two other books, both inexpensive, well worth a place on the doctor's desk, namely: *Epitome of the U. S. Pharmacopeia and National Formulary and Useful Drugs.*

The American Medical Association has wisely promoted the section on Pharmacology and Therapeutics in Recent Years. The interest in it is growing and it always has on its program men of world wide fame not only in medicine but in surgery and in many of the other specialties.

ORIGINAL ARTICLES

The Conservative Treatment of Eclampsia

James R. McCord, M. D., Atlanta, Ga.

I want to say that the material from which this little talk on eclampsia is taken is entirely from our own experiences in our own clinic. We think that when a man can come before you with a hundred and fifteen consecutive cases of convulsions in pregnant women, with a total mortality of 5.2 per cent, that the method of treatment used in those cases deserves consideration. We think that when in the last forty-nine cases of convulsions in our clinic that we have lost only one woman, with a total mortality of 2 per cent, that the method used is certainly worthy of consideration. Now these are the absolute facts, with no exceptions and with no corrections of any kind.

At the fear of being considered rather irregular, I might say that it is my personal belief that what obstetrics in America needs more today is a little more patience, a little more faith in a kind Providence and a little more trust in the individual woman. I do not know why the idea has become so wide spread that, regardless of what ails a woman, if she hap-

pens to be pregnant we should treat the pregnancy; do something about the pregnancy. I know of practically no disease that a woman may have, plus a pregnancy, that she is not better off if you treat the disease and absolutely ignore the pregnancy.

In our talk we shall say nothing about fetal mortality. I care little about fetal mortality. I am not proud of myself if I put a mother in her grave and send a little baby back home for an already over-burdened father to take care of, when by being a bit more conservative I might have saved the life of the mother. Fetal life is, in perhaps the majority of cases of severe toxemias, more or less problematic anyway.

When you take a woman having repeated convulsions from her home, ten, twenty or thirty miles to a hospital and do an immediate cesarean section on her, she will probably die. Treat her conservatively and the great majority of such cases will recover. I think that I know for at one time I thought that cesarean section was the best treatment for eclampsia. At the present time, it is my opinion that eclampsia treated by cesarean section exclusively will carry a mortality rate of some 10 to 20 per cent. I am speaking very emphatically and dogmatically about such treatment. You may well ask, "What are you going to do with these women?". Well, we do this.

Let us go back a bit before the detailed discussion of the treatment. As long as the cause of eclampsia is not known I am not going to speculate about it except to say that I believe that it has more than one cause. I do not believe that any sort of prenatal care is 100 per cent prophylaxis against the toxemias of pregnancy. I think that the mild toxemias of pregnancy will occur often, and, if untreated or improperly treated, will often develop eclampsia. One of the great values of systematic prenatal care is the early detection of these mild toxemias of pregnancy. If I could have only one instrument for prenatal work,

Transcript of talk delivered before the South Carolina Medical Association, Charleston, South Carolina, May 2, 1934. (Guest Speaker).

Note: Dr. McCord was introduced at the request of the President by Dr. Lester A. Wilson, Professor of Obstetrics at the Medical College of the State of South Carolina in the following words:

Mr. President: It gives me great pleasure to introduce to you this afternoon a physician of national, if not international reputation, one who had the privilege and advantage of serving under Dr. Polak, the father of modern obstetrics and gynecology. Dr. McCord represents the Federal Government through the Childrens Bureau and has given courses of instruction to local physicians in many of our southern states, a service that I wish he would render us in South Carolina. It gives me great pleasure to present Dr. Jas. R. McCord, Prof. of Obstetrics and Gynecology at Emory University who will speak to us on the conservative treatment of eclampsia.

in so far as the toxemias of pregnancy are concerned, I would without hesitancy choose the blood pressure apparatus. If I could have only two instruments, I would take the blood pressure apparatus and a pair of scales. By this I mean that the routine examination of the urine is probably the least important method of detecting the early toxemias of pregnancy. As a rule, there is a distinct and permanent increase in both the diastolic and systolic blood pressures ten days to two weeks before the appearance of abnormal constituents in the urine. It is rather rare to see a woman develop a severe toxemia of pregnancy who has kept her body weight within seventeen to twenty-five pounds of normal. I have found that a woman who gains more than twenty-five pounds during pregnancy, provided that her weight was normal in the beginning, is much more apt to develop toxemic symptoms.

When a woman comes to our clinic with convulsions we give her a quarter to a half of grain of morphine immediately, then 20 cc. of 10 per cent solution of magnesium sulphate intravenously. It can be given just as well with good results intramuscularly. In giving it intramuscularly, it is well to give it deep in order to prevent abscess formation. We give such a dose with all confidence and repeat it every hour as long as the convulsions continue. Sometimes we give as many as five or six hourly doses. When the convulsions are controlled (which rarely takes more than two or three such doses) we give magnesium sulphate in the muscle at more or less irregular intervals. We reserve sodium amytal intravenously for those rare cases in which the convulsions cannot be controlled by morphine and magnesium sulphate.

At this time we pay no attention to the woman's pregnancy. We do not know and we do not care whether the woman is in labor.

Magnesium sulphate will be successful in controlling convulsions after the first one or two doses in approximately 60 per cent of the cases.

How does this drug act in controlling the convulsions? It has a direct anagelsic action on the involuntary muscle fibers. It decreases the coma by taking the fluid from the wet

brain. It increases diuresis by abstracting fluid from the body of the patient and putting it into the blood stream.

As soon as the convulsions are controlled, or, in an occasional case where the convulsions continue, we give dextrose solution in the vein: 250 cc. to 300 cc. of a 25 per cent solution.

There are two or three precautions to be observed in the intravenous administration of dextrose solution. The water should be freshly distilled; the dextrose should be used from an ampule; and the solution should be given warm and slowly. Never use a new rubber tube that has not been boiled in some alkali solution. This dextrose solution is given every eight hours until the woman's labor is over and often for a period of time after she has delivered.

Up until this time we have not paid any attention to the woman's pregnancy at all. It has been our endeavor to control convulsions and get her out of the shock. Regardless of the duration of the pregnancy, if a woman has had convulsions, it is our belief that no matter how badly she may want the baby, or the father may want the baby or the family may want the baby, there is no justification for the continuation of that pregnancy. I feel that when a woman recovers from convulsions without pulmonary edema, a brain hemorrhage or failure of the right side of the heart, fate should not be tempted further. So I believe that after the convulsions are controlled labor should always be induced, regardless of whether the woman is seven months pregnant, eight months pregnant or nine months pregnant. I believe that the best way to induce labor, for average practice, is by simple rupture of the membranes. It is well to remember that it is not the rupture of the membranes but the loss of the amniotic fluid that causes the woman to go into labor. At times we have to push up the presenting part in order to release the bulk of the amniotic fluid. If this is done, the majority of the women will go into labor within eight hours. However, it is well to remember that it is harder to induce labor in a woman who is seven months pregnant than it is to induce labor in a woman who is at or about term. In eclamptic cases,

as a rule, we do not have the time to precede the rupture of membranes by administration of castor oil and quinine. If the woman does not go into labor within eight hours after the membranes have been ruptured, we give two minim doses of pituitary extract every thirty minutes for five doses. If uterine contractions start after the first dose, we never give a second one; if they start after the second dose, we never give a third one. That is to say, we never give pituitary extract to an actively contracting uterus. This and certain cases of placenta previa and accidental separation of the placenta are the only indications that we use in our clinic for the administration of this drug.

In this series of 115 consecutive cases there were 2 cesarean sections. One of these was for an absolutely contracted pelvis and the other, early in the series, was thought to be indicated on a primiparous woman and could probably have been avoided. There were ten forceps

deliveries and one breech delivery. All the rest of the cases had normal deliveries. We believe that forceps and internal podalic version deliveries not only do not improve the results in eclampsia but actually increase the mortality.

In a way the successful treatment of eclampsia is much like the successful treatment of placenta previa. We teach that painless hemorrhage in the latter part of pregnancy is practically always pathognomonic of placenta previa and that to obtain the best results the physician must go to his patient at the time of the first hemorrhage and stay with her until the baby and the placenta have been delivered, and, in a vast majority of cases, the uterus and vagina tightly packed with gauze. The same detailed care and watchfulness is necessary in the treatment of eclampsia. There is no short cut. The physician must stay with the patient.

The Drugs That Forty Five Years of Experience Have Taught Are Most Useful

By James H. McIntosh, M. D., Columbia, S. C.

Now this subject covers the whole range of *Materia Medica*; and the President most generously allows me fifteen minutes in which to present it.

And please let me say right here that the opinions expressed in this paper are my own personal opinions; I shall not quote you a single learned author; nor shall I wind up with an extensive bibliography. For this paper is the personal record of the impressions that have been made upon my mind in the use of drugs to cure or to control or to alleviate human ills during, the past forty five years. In order to consider the subject I shall take up these drugs in what to me is the order of their relative importance.

First—Water.

This is not usually classed as a drug; but to me it is the most important of all the remedies. And if we could persuade the majority of our patients to form an intimate acquaintance with water, the drug store business would go into a rapid decline.

As a remedy—Water is good externally, internally and eternally. With its external use—due to the growth of hydrotherapy during the period of 1890 to 1920 the Profession is well acquainted with its virtues and so it is not necessary for me to elaborate on this point. But there is just one word of caution I would like to utter regarding the bathing of febrile cases. And that is—never under any circumstances bathe an Influenza Case; the dirtier they are the more quickly they get well. Bathe them; keep them nice and clean; and fresh and sweet and have them die from an Influenzal Pneumonia.

It is to the internal use of water that I want to direct your attention. What is the most frequent disease or disorder with which you meet? It is not the much maligned "common cold"; the common cold runs a poor second to the leader. And this leader is *constipation*. And the most frequent cause of constipation

*NOTE: This paper was read before the Columbia Medical Society March 13, 1933, and by request before the Second District Medical Society July 25, 1933. The paper has been resubmitted to the author for revision to bring it up to date. Ed.

is that your patient hardly knows that God intended water for any other use than to wash your face in. He hardly knows how water looks in a glass tumbler. If you can teach this constipated patient that his best cure is to drink 12 to 16 glasses full of water in the 24 hours, you will have done a good day's work.

Tell him to drink his water at meal times; to drink it with his meals. And here the water should be taken cold; as cold as the individual desires it; personally I drink mine well iced. That he must drink at least 3 glasses with each meal; and that in addition he should drink at least one glass before breakfast; one between breakfast and dinner; one between dinner and supper; and 2 glasses before retiring. If you can get him to persist in this you will have cured his constipation. The only objection to this plan is that in six months you will have lost a patient; for your patient will be well and will stay well.

Again on the opposite extreme—water is the best remedy for nausea or vomiting. Here it should be taken *hot*; as hot as the patient can possibly swallow. And as much as three or four glasses full must be swallowed—one glass just after the other. It really makes very little difference whether the hot water stays down or whether it comes back up. In either case it washes the offending material out of the stomach and the patient gets the desired relief.

Another internal use of water is as an enema. And here again it is one of the best of the remedies. But here strange to say it is successful because of unpleasantness. For the patient dislikes the unpleasant enema so thoroughly that he will make a strong mental effort to avoid having to resort to it; and often this mental effort is all that is needed to produce a thorough evacuation.

There is a great deal more that could be said of this wonderful remedy but time forbids and we must hasten on to:

Second—Calomel.

If I lived in another section of this world I might not be such a profound devotee of calomel. But I know that in South Carolina, calomel is the drug of prime importance. (And I might add that from my somewhat limited

opportunities for observation that the rest of this world is very similar to South Carolina.) To my mind calomel possesses more of the virtues and fewer of the faults than any of the other cathartics.

It is claimed that it produces great nausea; but this is most often caused by insufficient dosage. My usual adult dose is fifteen grains and most often this is combined with one grain of podophyllin and three grains of compound extract of colocynth. Give this dose at bedtime and follow it in six or seven hours with a saline laxative, preferably citrate of magnesia, but any of the salines will do. Such dosing as this will give you the desired results and most often will cause very little nausea or accompanying prostration. And in twenty-four hours the patient will tell you that he feels like a new man.

Parenthetically I might say just here that the only reliable abortive treatment for a pneumonia that I have ever found is as follows:—

It is only applicable in the first 24 to 36 hours—while the lung is still only congested; not yet solidified. Give the patient calomel grains fifteen or grains thirty. Envelope the entire chest in a Baruch Cold Jacket. Keep the jacket dampened with cold water at 2 hour intervals. Follow the calomel in 6 hours by a saline laxative. And most often in from 24 to 36 hours the fight is won. I have had marked success with this plan in many cases.

To my mind there is no question but that calomel is the hepatic stimulant par excellence. And as the liver is the largest of all the internal organs, and as its secretion—the bile—is the most abundant of all the bodily secretions (with the exception of the urine), and as calomel is the most reliable and most active of all the hepatic stimulants; then naturally it follows that calomel is the most important of the drugs.

We now come to the

Third—Opium and its various Alkaloids.

The benevolent and merciful God who made us, "does not willingly afflict the children of men"; but when these children willfully and wantonly disobey his rules and laws they begin to suffer. And to allay this suffering this merciful God provides the "Juice of the Poppy". And it is my firm belief that he intended

us to use it when needed; but always to use it with due care and caution; with due wisdom and intelligence.

My favorites are the Alkaloids, Morphine and Codeine. And when your patient needs one or the other of these give it to him and give it to him in sufficient doses to obtain the best physiological results. For the average adult this will be morphine gr. 1-4 or codeine gr. 1-2 to gr. 1. And repeat this dose p. r. n.

If the individual is in violent pain such as a renal or hepatic colic; make your initial dose morphine gr. 1-2 and then repeat the smaller dose if needed an hour later. Let your attention be fixed on the relief you afford your patient, and not too much on what the textbook says is the proper size of the dose.

In these days of our beneficent paternal government in Washington—those wiseacres undertake to tell the Doctor just how he shall be allowed to practice medicine; and so it is often impossible for you to order over the phone any other anodyne than Paregoric. (Which this same wise government has decided can be sold ad libitum.) If you are prescribing for an adult give him at least a half ounce (one tablespoonful) of Paregoric and repeat if not relieved within an hour.

Before leaving the subject of opium and its alkaloids I wish to recall to your minds one of its most valuable alkaloids that is gone but not forgotten. A most unjust and uncalled for sentence of banishment was pronounced against it—I refer to Heroin.

We all know that heroin improperly used and indiscriminately sold is a dangerous drug. But that is no reason for denying to us the chance to prescribe it properly. Heroin is—when rightly used the most valuable of all the cough controlling agencies. And I hope to live long enough to see this sentence of banishment repealed.

We now come to

Fourth—Quinine.

I thank God that I did not have to practice medicine in South Carolina before the Catholic Priest learned from the South American Indians the virtues that lay hidden in the "Jesuit Bark." But though the Cinchona Bark and Quinine have now been in common use for more than 200 years yet there is still much

question as to how it should be administered. In my early days there was still a great deal of Cinchonine Sulphate and Cinchonidine Sulphate used but the last 40 years has seen all of us come to the use of Quinine; largely in the form of Quinine Sulphate; though some prefer the BiSulphate and others the Hydrochloride.

Of course quinine is most largely used for its antimalarial powers; the question is how to get the most marked effect from its administration. My custom is always first to give a thoroughly sufficient dose of calomel and to see that this dose acts thoroughly. Ascertain as nearly as you can the approximate hour at which your patient's rise of temperature begins. In most cases this hour is 10 A. M. or 12 noon. Now to get the greatest effect from your quinine the patient must receive his last dose of quinine about 2 hours before this beginning rise in temperature. Thus if the rise of temperature begins at 12 noon—then begin your quinine at 6 A. M. and give five grains at 6 A. M.—8 A. M. and 10 A. M. It is rarely necessary to give more than 15 to 20 grains of quinine in the 24 hours. And there appears to be no advantage in continuing the dosing after the temperature begins to rise. Stop; wait until the next morning and begin your quinine 2 hours earlier than in your first attempt.

I have had no experience with the massive doses: 30 grains and repeated in 2 hours; 60 grains and repeated in 2 hours. I have never found such heroic dosing necessary.

In addition to the Sulphate of Quinine you may frequently have to use Vinotone (a modified Warburg's Tincture that contains Quinine) or even on occasions the actual Warburg's Tincture. In children the Coco-Quinine will be found useful. The rules for administration being those already given.

In addition to its antimalarial effects quinine has many other uses. One of these is its oxytoxic effect. In slow, ineffective labor pains that are dragging along and wearing your patient out frequently quinine grs. X and repeated in one or two hours will produce the much desired pains.

It is also a valuable constituent of many of the so called "Tonic Mixtures"; but it is most

probable that the good it does here is its action on a latent malaria. And again quinine is frequently a valuable remedy in controlling Amoebic Dysentery. Here it is used in solution and given in high enemias.

We will now pass on to

Fifth—Iodine.

I suppose some will consider me a fanatic on the subject of the Tincture of Iodine. I have used it freely, regularly and frequently for the past 35 years. For its antiseptic properties I apply to all abraded or lacerated wounds—but most especially to all punctured wounds. And with uniformly good results.

Twenty-five years or more ago I reported to this Society on its use in punctured wounds of the foot. Here using a small glass syringe (or even a medicine dropper) I inject the wound with tincture of iodine forcing all I can get up into the wound, and then paint the surrounding surface well with the tincture of iodine. Sometimes this causes considerable pain; if so give the patient a hypodermic of morphine. Tell him to go on using his foot; walking about on it—to prevent it growing stiff. Repeat the treatment the next day; and by the third day your patient is usually well. And there is no need for Anti-Tetanic Serum. In all these years I have not found it necessary to administer a single dose.

For the Influenzal or Bronchial Cold cases—paint the whole chest from neck to waist and also the back from neck to waist with tincture of iodine. And the tight, oppressed feeling and the cough will almost immediately be lessened. Repeat this in 24 hours; and with the thicker skinned individual even a third application 24 hours later. I have never been able to make up my mind whether the benefit in these cases is due to the counter irritation or whether it is due to the inhaling of the rising fumes of the Iodine.

The usefulness of Iodine in Goitre cases and similar conditions has been so widely discussed in recent years that it is unnecessary to more than refer to it.

Sixth—Alcohol.

Let us pause a moment and drop a flower and a tear on the grave of this friend to man. For the last 15 years Alcohol has been ignominiously and unjustly interred by a band

of fanatics and its benefits have been denied to a suffering world because some people persisted in using it unwisely and to their hurt.

In my opinion Alcohol is an unexcelled remedy in many cases; and the world has been no better because its use was denied to them.

Again I express the hope that I shall live long enough to see this useful drug restored to its proper place.

Seventh—Arsenic.

This is one of the old tried and true friends. In these latter days many of us have fallen victims to the fashionable fad of administering "shots" of Sodium Caccodylate. And consequently the use of the older Arsenicals has fallen into the discards. But you will find the old Fowler's Solution of Arsenic or the Solution of the Chloride of Arsenic far more reliable; far less troublesome to administer; and far less costly to your patients.

Eighth—The Anaesthetics.

The lack of time demands that we consider these as a class. And I would mention Ether—Chloroform and Nitrous Oxide as the most distinguished members.

Now I know that you all—almost unanimously—will vote me as guilty of heterodoxy of the most vicious kind. For I here plead guilty to believing that the safest, cleanest, most thoroughly satisfactory anaesthetic of them all—is Chloroform.

It is my firm conviction, that when properly administered it is far more agreeable to the patient; with no strangling; no struggling; no nausea or vomiting during the operation; and with very little after nausea. The amount given can be far more easily controlled than can ether. The anaesthesia can be more evenly maintained. I freely acknowledge that it is dangerous; but not any more dangerous than ether when all the factors are considered. The dangers with Chloroform are in the immediate present; they come—if they come at all—while the patient is on the table. While with ether the patient dies on the 3rd to the 8th day; and consequently the death is not attributed to the ether.

I have now been administering Chloroform for more than 50 years. And I have never yet had a death from the Anaesthetic; and I continue to use chloroform constantly.

I admit that chloroform must be given more carefully than ether; and that frequently a man who is a first rate ether anaesthetist is a poor anaesthetist when it comes to administering Chloroform.

With the local Anaesthetics—Cocaine—Novocaine—Procaine, etc., you are all so familiar that it needs nothing more than just to mention them.

Also a valuable anaesthetic that should be spoken of is the Ethyl Chloride class. For slight temporary anaesthesias these are most valuable.

Nine—Iron.

You will find more preparations of Iron in the Pharmacopeia than of any other one drug. Some of these are most useful; others retain their place in the list only because of seniority. These preparations can be divided into 3 classes—The Inorganic Salts; The Organic Salts; and the lately added class of Iron combined with some activator mineral, such as Copper.

In the Inorganic Class—the most useful are the Tincture of the Chloride of Iron; the Sulphate and the Oxide.

In the Organic Class—The Albuminates; The Acetate; Citrate; Carbonate; Iodide and Valerianate.

In the third class the various mixtures containing Iron and Copper or Iron and Manganese. These seem to promise well; but as yet my experience with them has been of too recent a date (not more than 2 years) to really evaluate just what results have been obtained.

Tenth—The Glandular Extracts.

This group includes—Thyroid—Parathyroid—Pituitrin—Adrenaline — Lutein—Pepsin—Pancreatin—Spermin—and a host of others.

Every one of us uses these and uses them so constantly and so frequently that it is hard to realize that they belong to the newer generation. Yet when I began to practice medicine forty-five years ago none of them were in common use; and most of them had not been discovered.

Their discovery and use has constituted probably the most marked advance in medicine in the past 50 years.

But it must always be borne in mind that these are high powered remedies; that if im-

properly used they are very apt to produce disastrous results. How often do you have a patient come into your office agitated and apprehensive; with a rapid pulse; and a nervousness exaggerated to the nth degree; and you find on inquiry that she has been taking Thyroid either on her own volition or on the carelessly given advice of a doctor. When you prescribe Thyroid begin with small doses and increase gradually as needed and have the patient report to you at regular intervals for you to observe the effect of your dosage.

Again: Pituitrin is* a most valuable drug; but it is just as dangerous as it is valuable. I would dislike most exceedingly to go back to the days when we had to practice Obstetrics without Pituitrin. And though I carry it constantly in my obstetric bag and use it whenever I believe its use indicated, yet I never give a dose of it, that I do not put up an unspoken prayer that I have proportioned the dose rightly.

In using Pituitrin there are two rules that must never be forgotten. (1) Never give Pituitrin until the cervix is fully dilated or dilatable; and (2) never give Pituitrin when you have no reason to believe that the foetal head is disproportionately large.

My experience in the use of Pituitrin is that you begin to see the effect about 4 or 5 minutes after giving the hypodermic; that the effect reaches its maximum in 15 to 20 minutes; and that after 30 minutes its effect has usually passed off. Personally I rarely ever give the full ampoule at one time. Usually I give about 1-3 of the ampoule and repeat this p. r. n. at an average of 45 minute intervals. Sometimes I give half an ampoule. The only time I ever find it necessary to give the full ampoule is in a post partum hemorrhage with a relaxed uterus. And here it is usually best to follow the Pituitrin ampoule with a hypodermic of morphine gr. 1-4, atropin gr. 1-120 for the Pituitrin other wise will produce most violent after pains. Pituitrin has the same effect on unstripped muscle fibre of other organs as it has upon the uterus. Consequently it is frequently of much use for cases of gaseous distention of the intestines; for urinary retention; etc.

Eleventh—The Salicylates.

This group has been of the greatest use in the control of Rheumatism of various kinds. They will all reduce temperatures; produce sweating and allay pain.

The greatest objection to them is that constant dosing with any of them will more or less upset the stomach.

To this group belongs what is probably the most widely used drug of the present day—I refer of course to Aspirin.

Twelfth—The Antipyretics

It should always be borne in mind that the drugs of this class are not curative. They are used merely to reduce temperature; and to make the patient more comfortable.

In the main they are mostly products derived from Coal Tar. When used with discretion they constitute a valuable addition to our Armamentarium. Of this group I shall only mention three—viz—Phenacetin: Acetanilid: Antipyrin. Of these three the one I most frequently use is Antipyrin: it does not reduce temperature as profoundly nor as rapidly as Phenacetin—yet it is not as slow as Acetanilid; nor is the cyanosis or ischaemia near so apt to occur as with Acetanilid. To me it has always seemed that Antipyrin controlled the temperature better; relieved pain and restlessness far more markedly; did not produce the intense diaphoresis that Phenacetin does.

To the adult I usually give gr X and repeat if needed in 2 hours.

Thirteenth—The Hypnotics

To me the outstanding Hypnotics are the Bromides. The world moves in circles; the Bromides will have their day; then a new hypnotic will appear and all of the profession hastens to bow down before it; it lasts for only a period and then the Bromides come back into their own.

In my time—first it was the Bromides; then came Chloral Hydrate; then a return to the Bromides; then followed in turn Sulfonal—Trional—Veronal—with a recrudescence of the Bromides between. Latterly the Barbituric Acid Derivatives such as Barbitol, Luminal, Alonal, Amytal, Dial and their numerous progeny. And right here I want to enter my strongest possible protest against the use of any of these substances. I mean the Barbituric Acid Derivatives. It is my firmly established belief

that the use of any Barbituric Acid Derivative is always deleterious to the patient. The general public is always talking of the rapid increase in mental disease in recent years. That our Hospitals for the Insane are all overcrowded. And various explanations are offered giving the reasons for this condition. My own belief is that we Doctors and the Dispensing Druggist are the real reason. Because we give patients these damnable Barbituric Acid preparations. I have honestly tried to give these new additions to the Pharmacopeia a real test as to their true worth. But each time I have found my patient made mentally worse rather than better; and the last state of that man is worse than the first. Veronal was the first one to arouse my suspicion; and more than 20 years ago I discarded Veronal as a dangerous drug; and as each new one has appeared I have given it a trial; but thorough and complete condemnation of the drug has uniformly been the result.

I do not deny that they will most successfully produce sleep; but sleep at what a cost. For always for the next 24 hours the patient is dulled; often during this period leading a dual existence; and if the drug is given regularly the dulled mentality grows worse and worse. Sometimes it takes the form of an active delirium, but most often it does not.

To my mind these drugs that can be bought over the counter of any drug store, without any prescription are far more deadly and dangerous than are the narcotics or cocaine.

These Thirteen Drugs or Groups of Drugs are to me the foundation stones of the successful practice of medicine.

With them if you have studied their characteristics and are well acquainted with their usefulness and their dangers you are prepared to battle successfully with disease. And by their use to cure, to control or to alleviate most of your patients' medical ills.

The omissions from this list may surprise some of you.

Of these omissions there are two drugs of which I would like to speak briefly.

The first of these is—

Digitalis.

Forty-five years has not been time enough

for me to definitely make up my mind regarding Digitalis.

I am perfectly sure that in my earlier years I contributed to the rapid demise of many patients through my indiscriminate prescribing of Digitalis. I was a great believer in the virtues of Digitalis.

I am almost as sure that in my later years I have perhaps contributed to the death of some patients because I did not give them Digitalis.

Such being the facts I did not believe that I was the proper person to talk to you on Digitalis.

The second omission is

Cod Liver Oil.

This vile drug is my pet abomination. It was administered to me when I was a small child more than 60 years ago; and to this day I can still taste the vile stuff whenever I happen to think of those days.

Later when I was graduated in medicine and turned loose to practice on an unsuspecting people, like the average sheep I followed the Bell Wether, and began giving Cod Liver Oil ad libitum and ad nauseam to my patients.

This continued at intervals for probably 15 years. Then I began to wonder if I was getting anywhere in giving it; and also to wonder if something more palatable and more beneficial could not be found. After a period covering probably ten years I finally definitely concluded and proved to my own satisfaction that I could accomplish just as much if not more by the use of pure Butter than I did with Cod Liver Oil. I mean real buttery butter that comes wholly and entirely from a cow, not from a combination of a Cotton Seed Oil Mill and a nut crushing plant. Feed the baby the real butter raw; do not heat it; do not mix it with other foods. From the first taste the baby will take it willingly and always call for more.

If I had the gift of eloquence I would be

tempted to attempt the impossible—and that would be to try and persuade our Paediatricians to try this plan; but like a certain Biblical character—"they are wedded to their Idols." And I fear that the attempt to supplant Cod Liver Oil in their affections would be a vain effort. But if I could only persuade them to feed their babies butter enough they would never have to worry their brains over which one of the various emulsions or mixtures or irradiated or viosterolized cod liver oil is best suited for this baby.

To these Drugs as recalled above there can be added many others; most useful ones that fill a need when they are indicated.

To mention a few of these.

The other Mercurial Products besides Calomel.

The Salts of Potash; of Soda; of Ammonia; of Strontium.

The Vegetable Cathartics such as Cascara, Aloes, Senna, Podophyllin, etc.

The Salts of Silver—as the Nitrate—Argyrol—Protargol.

The Acids, Hydrochloric, Nitro Hydrochloric, Phosphoric, etc.

Nux Vomica, Hyoscyamus, Belladonna and Camphor.

The Oils—as—Castor Oil, Olive Oil, Petrolatum, Turpentine.

While to the Alcohol class Glycerine is a useful addition.

Bismuth, Barium, Calcium, Magnesium, Cerium Oxalate all have their place.

And there is also a place for Chrysarobin and Veratrum.

For the emergencies—

Amyl Nitrite—Nitro Glycerine—Strychnine and Caffein.

While last, but not easily forgotten, our loud smelling friend—Assafoetida.

To the host of others we shall have to say—Goodnight.

SURGERY

WM. H. PRIOLEAU, M.D., F.A.C.S., CHARLESTON, S. C.

"HYPERPARATHYROIDISM—A COMMON AND POLYMORPHIC CONDITION

Hyperparathyroidism has been recognized only recently and is generally considered a rare condition. Apparently this is accounted for by its being known only in its classic form—osteitis fibrosa cystica. From recent observations it now appears that it occurs in other forms more often than in the familiar one. A report of 17 cases from one clinic signifies that it is more common than is generally thought. It would be well for us to review the condition in its various manifestations for it is axiomatic in medicine that unless we know what we are looking for we do not recognize it when we see it.

These cases were reported from the Massachusetts General Hospital by Dr. Fuller Albright and his associates—J. A. M. A. 102: 1276 April 21, 1934.

Hyperparathyroidism is usually due to a functioning adenoma of the parathyroid gland. In some cases it seems to be due to a general hyperplasia. As a rule the size of the adenoma is proportional to the severity of the disease. While it is generally palpable, it may be situated very deep in the neck or in the mediastinum.

The excessive production of hormone causes a disturbance in the calcium and phosphorous metabolism. There is an increased excretion of both elements in the urine. Blood examination shows an increased serum calcium level and a decreased serum phosphorous level.

The most characteristic clinical manifestation is a generalized demineralization of the bones resulting in an increased radiability. Cysts and tumors are common secondary changes. They often predispose to fractures.

The increased excretion of calcium and phosphorous in the urine not infrequently leads to

the formation of urinary calculi. There may be calcium phosphate precipitates in the renal parenchyma causing secondary contracture and insufficiency. Polyuria and polydipsia are present in almost all cases. The passage of gravel or calculi may be the first symptom of the disease. The cases with polyuria are less apt to develop calculi.

The general symptomatology is the opposite of parathyroid tetany. Hypotonia, lassitude and constipation are frequently present, though the patient may not complain of them.

The diagnosis is suspected in cases of nephrolithiosis and generalized decalcification of the bones. It is definitely made by chemical examination of the blood. Hyperparathyroidism is almost unique in giving a condition of high serum calcium and low serum phosphorous. Diseases most likely to be confused with it are senile osteoporosis and Paget's Disease (osteitis deformans). A bone biopsy may be necessary in doubtful cases. In hyperparathyroidism the marrow is fibrosed, the bone is porous and filled with osteoclasts.

Either the bone or the kidney involvement may be the predominant feature. They may be associated or occur independently of each other—no doubt depending upon the severity and the duration of the disease. The first clinical sign may be the passage of gravel, nephrolithiasis, or even Bright's disease. On the other hand a spontaneous fracture or bone deformity may be the first thing noticed.

In cases of renal calculi and unexplained bone tumors or fractures it would be well to make a routine determination of the blood calcium and phosphorous. Otherwise we are bound to overlook a number of cases of hyperparathyroidism and miss the opportunity of effecting a cure.

The treatment for this condition is the surgical removal of the excess parathyroid tissue. The results have been very satisfactory.

SOUTH CAROLINIANA

J. I. WARING, M.D., CHARLESTON, S. C.

"That Remarkable Philosopher and Physician, Wells of Charleston" is the subject of an article by Capt. F. L. Pleadwell, U. S. N. (*Ann. Med. Hist.* N. S. 6 Mar. 1934—128), who takes his title from a remark of Sir William Osler. Apprentice to Alexander Garden, student at various schools, and finally graduate of Edinburgh, Wm. Charles Wells returned to Charleston in 1781, and in behalf of his father's interests became printer, bookseller, merchant and agent. With the departure of the British, Wells moved to St. Augustine, later returned to Charleston, was imprisoned, and upon leaving prison was wrecked on the bar of the harbor. Back in London, he returned to scientific work and began a practice which was entirely unsuccessful in a material way, but one rich in medical observation and experience, so much so that Capt. Pleadwell names him "the first exponent of the theory of natural selection, discoverer of the nature of dew, and physician."

A Clinical Study of Liver Abscess—J. R. Young, Anderson. *South Surg.* 3—79.

Report of 20 cases operated upon. 15 were apparently of amebic origin. The condition is not common in Anderson. The author stresses the value of emetine in conjunction with surgical procedures; the drug alone will sometimes cure an abscess.

Abscess of the Liver Complicated by Duodenal Fistula—G. H. Bunch and O. B. Mayer, Columbia. *Sou. M. J.* 27 May 1934—393.

Report of a rare complication of liver abscess. The postoperative use of the duodenal tube passed beyond the fistulous opening, and

frequent hypodermoclyses were measures aiding recovery.

Continuous Rhythmic Movements of the Palate, Pharynx, and Larynx—W. Bristow, Columbia. *Sou. M. & S.* 96 April, 1934.

A review and a case report of such movements resulting from organic brain disease (traumatic encephalitis). Laboratory and other aspects of physical examinations were negative.

An Interesting Problem in the After Care of Hemorrhoidectomies—T. Brockman and S. Cain, Greenville. *Transactions of the Amer. Proct. Soc.*—1933—113.

Th authors believe that in those individuals who develop troublesome postoperative symptoms there is frequently present an infection in the rectal mucosa, that such infection is derived from other areas in the body and is promoted by an inadequate dietary, and that its correction requires careful attention to securing a diet which has an alkaline ash, a high vitamin and a low salt content.

The McLeod Infirmary Bulletin, Vol. 1, No. 3, July 1934, contains four articles. The first, by Dr. S. R. Lucas, describes the technique of "Conjunctival Flap Operations." The next, by Dr. M. R. Mobley, discusses "Anaesthesia in Tonsillectomy." Dr. James McLeod reports a case of "Teratoma of Pancreas," and Dr. J. P. Price discusses "Beriberi in Infancy" and describes a case of this disease seen in Florence.

WOMAN'S AUXILIARY

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MRS. FURMAN IS BRIDGE HOSTESS

One of the most enjoyable affairs of the season was the bridge tournament Wednesday afternoon, sponsored by the Pickens County Medical Auxiliary and held at the home of Mrs. W. B. Furman. The home was beautifully decorated with gladiolas and other summer flowers and about twelve tables were in play in the living room, dining room and on the porch.

Prizes were given by the business firms of Easley for the high score at each table. Among those winning the prizes were: Mrs. Julian Hiott, Mrs. Jack Hagood, Miss Maybeth Johnson, Miss Cleo Hendricks, Miss Esther Todd of Simpsonville, Tom Furman, Mrs. W. W. Robinson, Mrs. J. C. Brice, Mrs. Alex St. Amand of Charleston, and Miss Ruth Martin.

At the end of the games most delicious sandwiches and iced tea were served.

MEDICAL AUXILIARY MET AT CAMP MARION

The Auxiliary to the Columbia Medical Society had its last meeting of the year Tuesday morning on the cool screened porch of Camp Marion, the Y. W. C. A. camp. Camp Marion was named for Mrs. Clarendon Barron, a member of the Auxiliary.

The president, Mrs. H. L. Timmons, gave a resume of the year's work.

Mrs. W. A. Boyd gave a report of the State student loan fund. The Auxiliary voted to add \$50.00

to the already contributed quota of \$45.00. Mrs. O. F. Owens and Mrs. W. C. Abel gave reports of the Annual Auxiliary meeting at Charleston.

Delicious refreshments were served picnic style.

REPORT OF NATIONAL CONVENTION AT CLEVELAND OHIO, READ BEFORE GREENVILLE COUNTY MEDICAL AUXILIARY IN JULY

This was the 4th National convention I've had the pleasure of attending, the other 3 being in Portland, Oregon, Philadelphia and Milwaukee. I enjoyed this one more than the rest because being a member of the National Board I had the privilege of attending both the Preconvention and Post Convention Board meetings. Then knowing the National President, Mrs. Blake, personally, after having been in Charleston together, also made it an outstanding meeting for me.

There were 900 women from 29 different states registered in Cleveland. There are about 14,000 members of the Auxiliary.

On the first day the Preconvention Board meeting was held at 10 o'clock at Hotel Carter. As usual there was a great amount of discussion as the reports and recommendations of officers and chairman were heard. The luncheon was held at 1 o'clock and after the luncheon the Board reconvened and was in session till 6 o'clock. That evening a dinner reception was held. At this dinner all of the officers were introduced as well as all of the state presidents. The next morning at 8 o'clock there was a Southern breakfast at which Mrs. Southgate Leigh, president of Southern Medical Auxiliary, presided. This was principally for the representatives from Southern states but others were invited and a large crowd attended.

Tuesday A. M. at 10 o'clock the first general session was opened with invocation by a local minister. Then greetings and announcements by Mrs. Cummer, local Chairman of arrangements in Cleveland. After this the "In Memoriam" service was held. Mrs. Frank Haggard of San Antonio, Texas had the reading part of the service. She did it beautifully and following her appropriate remarks sang a solo "There Is No Death." We were both very pleased that the Auxiliary gave us a rising vote of thanks for our part on the program.

At the roll call of state Auxiliaries 39 responded. On Thursday 2 more South Carolina women came in, they were Mrs. Dunn and Mrs. Winter of Sumter, S. C.

The President, Mrs. Blake's, report came next and showed an enormous amount of work accomplished and miles travelled visiting state auxiliaries.

Other reports of officers and chairmen were given. The budget for the year was \$3100.00. Dues this year about \$3600.00. It was voted that the Corinne Keen Freeman fund be \$500.00 this year. The states are supposed to contribute to this.

It was decided that the Jane Todd Crawford project be a Southern undertaking.

A recommendation was made that name be changed to American Medical Auxiliary was favorably received but no action taken on it. The State reports had to be postponed as time ran short but were given after luncheon. At this time Dr. Harris of California showed movies of "How to put a bill through the State Legislature."

The report of the nominating committee was given and the President elect was a Southern woman, Mrs. R. N. Herbert of Tennessee, now chairman of Hygeia.

At the luncheon in the Rainbow room we had an address from the new president of A.M.A., Dr. Biering. Also Dr. Leigh and Dr. Myers spoke and more movies were shown.

Following the luncheon came the state reports. These to me were very inspiring. All states stress Hygeia more than we do.

Most of the States had loan funds or some kind of fund for physicians or their families.

I gave South Carolina's report and it was favorably received.

North Carolina kept up a bed at the State Sanatorium, besides a loan fund.

Pennsylvania has Junior Auxiliaries.

New Jersey gave \$500.00 to doctor's relief fund.

New Mexico gave milk to undernourished children.

Louisiana stressed Health examinations and had an indigent physician fund.

Missouri and Kentucky have quarterly bulletins published.

All states showed a great amount of work along social and philanthropic lines.

Thursday A. M. two conferences on Hygeia and Public Relations.

Then the Post Convention Board meeting followed by general meeting with new president, Mrs. Robert Tomlinson of Wilmington, Delaware, presiding.

She announced her committee appointments and presented her plans for the year and I believe we shall have a fine year under her leadership. The other two luncheons at Lake Shore Hotel and Country Club, with style show and bridge following, were very lovely as well as president's ball and musical in Medical Arts Building. Cleveland was a wonderful Convention city and this meeting was a memorable occasion.

Given by Mrs. Chas. P. Corn, President of S. C. Auxiliary.

GREENVILLE COUNTY MEDICAL AUXILIARY

July meeting of the Greenville County Medical Auxiliary was held with Mrs. J. H. Crooks. Reports of officers and committee chairman. Usual business. Then reports of Charleston meeting given by Mrs. Edwards and Croah. Report of meeting at Cleveland given by Mrs. Corn. A paper "Toward Socialized Medicine" by Mrs. E. W. Carpenter. Current events from Hygeia by Mrs. Murray.

RESOLUTIONS ON MEDICAL ECONOMICS

Dr. Samuel E. Harmon in discussing Medical Economics at the Second District Medical Meeting at Batesburg, S. C., July 31, 1934, offered the following resolutions which were unanimously adopted.

Whereas the changes of our civilization have brought many complex problems for study and solution by The Medical Profession.

And whereas The American Medical Association through the house of delegates at the last meeting in Cleveland Ohio developed and passed ten fundamental principles to guide The Medical Profession in meeting the many problems of medical service in the United States.

And whereas The Judicial Council of The American Medical Association at the last meeting in Cleveland after mature consideration presented three Amendments to the principles of Medical Ethics which were indorsed by the reference committee on amendments to The Constitution and By Laws and were adopted by the House of Delegates. These

Amendments were relative to contract practice. Defining Contract Practice, etc.

And whereas it is our opinion that the above principles referred to are sound and are of vital importance to our entire nation.

Therefore be it resolved first—

That this association go on record approving the action of the House of Delegates of the American Medical Association with reference to the above principles.

Resolved second—

That we recommend that a permanent committee to be known as The Committee on Medical Economics be created in each component County Medical Society in this state whose duty shall be to study and act upon all local problems that may and will come up from time to time in the future.

Resolved third—

That a copy of these resolutions be sent to The South Carolina State Medical Journal for publication.

- - - BOOK REVIEWS - - -

New and Nonofficial Remedies, 1934, containing descriptions of the articles which stood accepted by the Council on Pharmacy and Chemistry of the American Medical Association on Jan. 1, 1934. Cloth. Price, Postpaid, \$1.50. Pp. 510; 1x. Chicago: American Medical Association.

New and Nonofficial Remedies, 1934, has the same pleasing format and helpful mechanism that has characterized it in past years. The enrichment of the indexing started a few years ago is continued and its value even increased by some desirable simplification of cross references.

The Council has made the usual careful revision of the book. The general article Lactic Acid-Producing Organisms and Preparations has been practically rewritten. The chapter on Arsenic preparations has undergone some revision, especially in the statement concerning Nearsphenamine. The descriptions of Chiniofon and Vioform have been revised in the light of recent developments in the treatment of amebiasis. The article on Ethylhydrocupreine has been revised to delete references to Optochin Base, which has been omitted; Optochin Hypochloride has been retained, being recommended only for external use. The description of Typhoid Vaccine has been revised to give the dosage of the combination of typhoid and paratyphoid organisms and to mention the use of typhoid vaccine in nonspecific protein therapy. A number of revisions of the Council's Rules have been made, particularly with reference to the names of products, which is one of the most frequent and troublesome of the problems with which the Council has to deal. Comparison with last year's volume will show that revisions of more or less importance occur in many other chapters.

Among the preparations newly included in this volume are: Aminophylline, a double salt or mixture of theophylline and ethylenediamine, with the advantage of greater solubility over other theophylline preparations; the new alum precipitated diphtheria toxoid; Neo-Iopax, a new medium for intravenous urography; Benzedrine, an ephedrine substitute; serums containing type II pneumococcus antibodies, which the Council has recently

recognized as worthy of clinical trial in view of improved preparations and technic; Autolyzed Liver Concentrate and Extralin, two new liver preparations for use in the treatment of pernicious anemia; Metycaine, a new local anesthetic; and Sodium Morrhuate, a salt of the fatty acids of cod liver oil, proposed for use as a sclerosing agent.

MANUAL OF THE DISEASES OF THE EYE FOR STUDENTS AND GENERAL PRACTITIONERS, BY CHARLES H. MAY, M.D., Director and Attending Surgeon, Eye Service, Bellevue Hospital, New York, 1916 to 1926; Consulting Ophthalmologist to the Mt. Sinai Hospital, to Bellevue Hospital, to the French Hospital, New York, and to the Monmouth Memorial Hospital; Formerly Chief of Clinic and Instructor in Ophthalmology, College of Physicians and Surgeons, Medical Department, Columbia University, New York. Fourteenth Edition, Revised With 376 Original Illustrations, Including 25 Plates, with 78 Colored Figures. Baltimore, William Wood and Company.

This is one of the best of the smaller manuals and having passed through fourteen editions may well be called a classic. This volume has been carefully revised but not much increase in size. It is a splendid book for the student and a satisfactory handbook for the busy general practitioner. The illustrations are admirable.

THE MERCK MANUAL OF THERAPEUTICS AND MATERIA MEDICA, A Source of Ready Reference For the Physician. Compiled and published by Merck & Co., Inc., Rahway, N. J., 1934.

This manual is now in its Sixth Edition with 1379 pages. It is a very valuable book for ready reference. There is an epitome of most diseases met with in general practice and a large number of prescriptions appended in the treatment of each disease. The materia medica section of the book is quite up to date. There is much general information also available for the practitioner. The price of the book is \$2.00 actual cost as a matter of fact for its publication.

MINUTES

(Continued from Last Month)

Dr. C. B. Epps, of Sumter, presented the following resolutions and moved their adoption:

Resolutions of the Sumter County Medical Society adopted April 23, 1934, for Presentation to the South Carolina Medical Association

WHEREAS, the Sumter County Medical Society desires to have the Journal of the South Carolina Medical Association as readable and instructive as possible, and thinks that others feel the same way; and,

WHEREAS, in order to obtain an opinion of the value of the Journal, we sent a questionnaire to the different members of the State Association, asking the following questions: (1) Do you conscientiously read the Journal each month? and (2) Would you subscribe to the Journal if it were not compulsory?; and the replies to these questions were as follows:

(1) Those who read the Journal.....	229
(2) Those who do not read the Journal.....	125
(3) Those who would subscribe.....	184
(4) Those who would not subscribe.....	173

THEREFORE, with this information, and after careful study, the Sumter County Medical Society wishes to offer the following resolutions:

First: BE IT RESOLVED by the Sumter County Medical Society that the Journal of the State Association should be improved or discontinued, and that it offer several methods to effect this end, for the consideration of the State Association, as follows:

(1) That the office of the Secretary of the State Medical Association and the office of Editor of the Journal be divorced, and that our efficient and honored Secretary be continued as Secretary, and that another be elected to edit the Journal, and that the salaries of the two be adjusted by a committee of three appointed by the President of the State Medical Association; or

(2) That we affiliate with the Journal of Southern Medicine and Surgery (Charlotte, N. C.); or

(3) That we discontinue compulsory subscription to the Journal.

Second: BE IT RESOLVED, FURTHER, by the Sumter County Medical Society that this Society is of the opinion that a change should be made in the policies of organized medicine in the State; that this Society believes in organized medicine as taught by the American Medical Association, and feels that the State Association, through its Journal, has not helped organized medicine in the State in numerous ways, as in its failure to oppose the Sheppard-Towner bill, which was opposed by the American Medical

Association. The Journal also failed to voice the sentiments of our physicians and the American Medical Association in the majority report of the Committee on Cost of Medical Care. The Journal made no apparent effort to see that the profession received just fees for treating cases referred to them by the Emergency Relief Administration. It is not putting forth any effort, as is being done by the American Medical Association and other medical units, to combat the trend toward socialized and State medicine and toward keeping the control of the practice of medicine out of the hands of nonmedical men.

IT IS FURTHER RESOLVED that these resolutions be presented before the House of Delegates, at the next meeting of the State Association, by the delegates from this county, and that the Secretary send a copy of these resolutions to the Secretary of the South Carolina Medical Association.

After discussion, the resolutions presented by Dr. Epps were referred to the Reference Committee on Resolutions for immediate consideration, and the Committee retired for this purpose.

Dr. Edward F. Parker, of Charleston, offered the following motion:

That this Association congratulates and felicitates Dr. E. A. Hines upon his long period of valuable service to the Association, and that we hope his services will continue to be rendered for many years to come.

This motion was adopted with applause.

Dr. J. W. Jervey offered to serve as Secretary for one year, without compensation, if Dr. Hines would accept the presidency of the Association, with the understanding that Dr. Hines would resume the secretaryship at the end of the year.

Dr. J. W. Jervey moved that the previous action of this House of Delegates, in referring all standing committee reports to the Council for their consideration, be rescinded. Seconded. On motion of Dr. E. F. Parker, Dr. Jervey's motion was tabled.

Dr. Edward F. Parker moved that this Association put itself on record as being opposed to the wholesale propagandizing of contraceptives to the general public. On motion of Dr. Jervey, this motion was also tabled.

The President recognized Dr. R. S. Cathcart, Chairman of the Reference Committee on Resolutions, who reported as follows:

The Reference Committee on Resolutions has carefully considered the resolutions offered by the Sumter County Medical Society and, after due consideration, recommends an unfavorable report on all three.

The Committee reports favorably on the resolution recommended by the Southern Medical Association, which is as follows:

Resolutions presented by Dr. William Weston, of Columbia, and Dr. Robert Wilson, of Charleston, to the Council of the Southern Medical Association at the 27th Annual Meeting, Richmond, November, 1933.

RESOLVED: That the Federal authorities be urged to undertake the work of chemical analysis of foods upon a broad and impartial scale and the study of relationships of the different chemical elements.

RESOLVED: That the Southern Medical Association requests the cooperation of all other state and national medical associations in this country.

On motion, the report of the Reference Committee on Resolutions was adopted.

On motion of Dr. Cathcart, the Delegates to the American Medical Association were instructed to present to the House of Delegates of the American Medical Association the resolutions sponsored by the Southern Medical Association, and to move their adoption thereby.

Dr. C. B. Epps offered the following motion: That, after the election at the present session, no man be eligible to represent the South Carolina Medical Association, as delegate to the American Medical Association, for more than two consecutive years.

Dr. Cathcart discussed this motion, in opposition. On motion of Dr. E. M. Dibble, it was tabled.

On motion of Dr. K. M. Lynch, the following resolution was adopted:

RESOLVED: That this Association set up a cancer committee composed of a chairman, to be appointed by the President, and a member from each of the districts, to be appointed by the chairman, the purpose of which shall be to develop and further a program designed to better the control of cancer and to cooperate with the American Society for the Control of Cancer and other such agencies in their programs for this purpose.

Dr. J. W. Jervey read some correspondence that had passed between himself and J. W. Phillips, Doctor of Chiropractic, and between himself and Mr. Johnston.

Dr. R. P. Finney moved that Dr. Jervey's communications be read before the general session at least once before the end of this annual meeting, and that copies be sent to the secretaries of all county medical societies, with the request that each secretary read them before his society. This motion received several seconds and was adopted without a dissenting vote.

The Committee on Credentials reported seventy-seven delegates, past presidents, and councilors present and eligible to vote.

ELECTION OF OFFICERS

President-Elect: Dr. J. J. Ravenel, of Charleston, nominated Dr. Samuel E. Harmon, of Columbia; and Dr. G. A. Neuffer, of Abbeville, nominated Dr. W. L. Pressly, of Due West.

The President appointed Drs. Finney, Wallace, and Mabry to act as tellers.

After the ballots had been cast and the vote counted, the President announced that Dr. Harmon had been elected President-Elect.

Secretary-Treasurer: Dr. E. A. Hines was nominated for re-election, the nominations were closed, and Dr. Hines was elected by a unanimous rising vote.

Councilors: The following were elected members of the Council:

Second District—Dr. Thomas A. Pitts, Columbia.

Fourth District:—Dr. R. C. Bruce, Greenville (Re-elected).

Sixth District—Dr. Douglas Jennings, Bennettsville (Re-elected).

Eighth District—Dr. George M. Truluck, Orangeburg (Re-elected).

Members of State Board of Medical Examiners: The following were elected as members of the State Board of Medical Examiners:

First Congressional District: (To succeed Dr. J. T. Taylor, resigned) Dr. Pinckney Ryan, Ridgeland.

Second Congressional District: Dr. J. S. Matthews, Denmark (re-elected).

Fourth Congressional District: Dr. G. R. Wilkin-son, Greenville (re-elected).

It was then announced by the President that it had been found that Dr. Ryan is not eligible to serve as a member of the Board of Medical Examiners for the First District, as he is a resident of Jasper County. Dr. L. M. Stokes, of Walterboro, was then elected to the Board to fill the vacancy in the First District.

Delegates to American Medical Association: Dr. J. H. Cannon was nominated to succeed himself. Dr. W. P. Timmerman nominated Dr. O. B. Mayer, of Columbia. A vote by ballot was taken, and after the ballots were counted the President declared Dr. Cannon elected as Delegate.

Alternate: Dr. O. B. Mayer was elected as Alternate Delegate to the American Medical Association.

At the request of the President, Dr. Edward F. Parker and Dr. Thomas A. Pitts escorted Dr. Harmon, newly elected President-Elect, to the platform. (Cries of "Speech!")

DR. S. E. HARMON: Mr. President and members of the South Carolina Medical Association:

I have been a member of organized medicine, I suppose, for thirty-five years. I have served on your Board of Councilors for sixteen and have been Chairman of your Board of Councilors, I suppose, about eleven years. I have enjoyed the work; I have given you the best that I have; I have tried in every way to practice honest, conscientious, scientific medicine; and I assure you that I appreciate this honor more than I can express in words. I can promise you that I will give you the best that I have, as I have done in the past. I can assure you, also, that this is the happiest moment of my life since I have

been connected with organized medicine. I hope that I have earned this honor; I hope that you have given it to me because I have earned it, because I believe that this honor should be earned by any man who has it. I can only promise you that I shall give you my best in the future, as I have in the past—the very

best that I have, for conscientious, honest organized medicine.

I thank you. (Applause.)

There being no further business to come up, the House of Delegates then, at eleven-twenty o'clock p. m., adjourned *sine die*.

EYE, EAR, NOSE AND THROAT

J. F. TOWNSEND, M.D., F.A.C.S., CHARLESTON, S. C.

NOTES ON THE DIAGNOSIS OF OTITIC MENINGITIS

Samuel J. Kopetzky

Annals of Otolaryngology and Rhinology
June, 1934, p. 401.

The cerebrospinal fluid is a dialysate which filters from the capillaries of the choroid plexus, and from the capillaries of the perineural and perivascular spaces of the central nervous system. It is absorbed into the longitudinal and lateral sinuses of the skull. Its flow is osmotically—increased or retarded by a relative dilution or concentration of the blood. (Weed).

Its function is dual: 1st., carrying away the katabolic results of brain metabolism; 2nd., equalizing and maintaining intracranial pressure.

A meningitis causes a disturbance of this fluid; it can therefore be recognized by a study of this fluid.

The first effect of meningeal infection is a great outpouring of cerebrospinal fluid. This results in an increased intracranial spinal fluid pressure.

The effect of increased intracranial fluid pressure is a compression of the intracranial blood supply—afferent and efferent. This produces a lessened oxygenation resulting in an

incomplete oxidation of the carbohydrates—the anaerobic type of oxidation predominates over the aerobic—and large quantities of lactic acid results. The lactic acid content of meningeal spinal fluid is four times that of the lactic acid content of the blood plasma.

The second stage of meningitic development concerns the changes in the cells of the brain tissue, the choroid plexus and of the perineural and perivascular spaces. As the result of an increased lactic acid reaction the water-binding property of tissue colloids is increased, we therefore have as a result of "lessened alkalinity" (a) edema and (b) an interference with cell function with an increase in cholin.

The ph. changes from 7.5 to 7 or 6.9. A 0.5 lowering of ph. (or 0.5×10 in concentration of hydrogen ion) in blood cannot sustain life.

Since lactic acid drives off CO_2 from the carbonates there is found a decreased bicarbonate content.

	BLOOD PLASMA		SPINAL FLUID	
	Normal	Men.	Normal	Men.
Carbon Dioxide (Vol. 0/0)	55-75	55-75	65-80	35-55
Chloride (Mgm/100 cc)	550-650	550-650	650-750	450-550
Lactic Acid (Mgm/100 cc)	5-10	15-50	5-7	15-200
Ph. -----	7.43	7.3-7.45	7.5	6.9-7.3

	Normal	Meningitis
Spinal fluid/blood plasma gradient		
For chloride -----	Plus 75	.29 to .50
For carbon dioxide -----	Plus 1.5 to 5.0	5 to 20
For ph -----	Plus 0.1	-0.15 to .05
Spinal fluid/blood plasma ratio		
For lactic acid -----	0.6 or less	1 to 4

THE SECOND DISTRICT MEDICAL SOCIETY
HELD AT THE RUTLAND HOTEL, BATES-
BURG, S. C., TUESDAY, JULY 31, 1934, AT
5 O'CLOCK

Program

1. Constipation, Dr. Hugh Smith, Greenville, S. C.
2. Medical Economics, Dr. S. E. Harmon, Columbia, S. C.
3. Factors Influencing Gastric Function, Dr. T. A. Pitts, Columbia, S. C.
4. The Gall Bladder Complications of Typhoid Fever, Dr. N. B. Heyward, Columbia, S. C.
5. Prostatic Resection, Dr. W. R. Barron, Columbia, S. C.

Discussions will be limited to five minutes.

Dinner will be served at a convenient hour.

Dr. D. F. Adcock, Secretary,
Columbia, S. C.

ANNUAL MEETING EASTERN CAROLINA
MEDICAL ASSOCIATION, OCEAN FOREST
HOTEL, MYRTLE BEACH, S. C., HELD JULY
20, 1934, 10 A. M.

Address of Welcome—Col. Holmes B. Springs,
Myrtle Beach, S. C.

Treatment of Summer Diarrhoea—Dr. J. Buren
Sidbury, Wilmington, N. C.

Advice to the General Practitioner—Dr. Robt. Wil-
son, Dean Medical College of S. C., Charleston, S. C.

Treatment of Infections of Face and Hands—Dr.
Deryl Hart, Surgeon-in-Chief, Duke University, Dur-
ham, N. C.

The Management of Pelvic Inflammatory Condi-
tions, Dr. Oren Moore, Charlotte, N. C.

The Significance of Pyuria—Dr. M. F. Fowler,
Atlanta, Ga.

Foreign Bodies in Chest of Children (with lantern
slides)—Dr. S. K. Hart, Charlotte, N. C.

NEWS ITEMS

Dr. James A. Hayne, State Health Officer, and Dr. Applewhite visited the Headquarters of the State Association at Seneca recently and while there discussed the problem of maternal and infant mortality in South Carolina with the Secretary Editor.

The Journal has been requested to assist two small towns to secure young physicians. One in Orangeburg County and one in Spartanburg County.

Dr. G. T. Tyler of Greenville visited the Headquarters office of the Association recently.

The fall season is approaching and the Journal always carries some new ads well worth consideration. Many doctors are interested in used X-Ray apparatus. There is an ad of interest in this issue along this line. Some of the advertisers of the Journal have been patrons since the first issue 29 years ago.

DRUG ADDICTS

Drug and Aleoholie patients are humanely and successsfully treated in Glenwood Park Sanitarium, Greensboro,, N. C.; reprints of articles mailed upon request. Address

W. C. ASHWORTH, M. D., Owner
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Medical Director

Box 388
Columbia, S. C.

Mrs. J. W. Babcock
Superintendent

MISREPRESENTATION

Just as long as the antivivisectionists permit their activities to be motivated emotionally rather than rationally, they continue to expose the extreme weakness of their arguments. A particularly flagrant example of distortion of fact has come to light in connection with an editorial in a recent issue of *The Journal*. (1). A liberal excerpt of the original statement follows:

To many it may seem strange that in this day "laboratory medicine" needs any apologies or defense. Yet not long ago Mendel (2) of Yale University said that there are today not a few physicians as well as other friends of medicine who, although admitting the noteworthy contributions of animal experimentation, nevertheless urge that its dominant importance is passing. Though the pendulum of enthusiasm for a laboratory innovation may at times swing too far, it soon reaches a stable level. In his defense of scientific experimentation in medicine, Mendel made a vigorous plea that devotees of practical medicine and surgery refrain from unwarranted derogatory attacks on one of the best helps of their profession in the past. It is difficult enough, he added, to fight suffering, disease and death without being obliged to fight the ignorance and prejudices of those who would tie the arms of the laboratory worker.

To a mature individual with ordinary education and the ability to understand clear English, the meaning conveyed by the foregoing quotation is inescapable. Yet in the July 1934 issue of the *Starry Cross*, the official organ of the American Antivivisection Society, there appears in the column entitled *Heard and Read* the following comment:

A surprising editorial in the *Journal of the American Medical Association* (May 26, 1934) quotes L. B. Mendel of Yale University to the effect that "There are today not a few physicians as well as other friends of medicine who, although admitting the noteworthy contribution of animal experimentation, nevertheless urge that its dominant importance is passing." This is a great deal for a pro-vivisectionist to admit publicly, and is a welcome indication that the vivisectioning profession is being forced to admit, however slowly, that its boosting of vivisection is bringing it into wider and wider disrepute with a consequent disastrous effect upon medical pocketbooks and reputations. It is safe to say that when the profession at large does awake from its self-induced delusions regarding the cruel and disgraceful practice of vivisection, it will turn its back upon the once-vaunted "scientific research" as completely and with the same scorn as that accorded its other fads of yesterday.

A comparison of the two quotations is sufficient

comment on the methods of misrepresentation employed by the antivivisectionist. It provides another example of the tendency of the "will to believe" to becloud intellectual integrity.—*Jour. A. M. A.*, Aug. 25, 1934.

(1) Hyperparathyroidism: A Chapter in Successful Laboratory Research, editorial, *J. A. M. A.* 102:1764 (May 26), 1934.

(2) Mendel, L. B.: Scientific Experiment and Medicine, *Science* 76:393 (Nov. 4) 1932.

POSTGRADUATE DERMATOLOGIC TRAINING: ITS RELATIONSHIP TO CERTIFICATION OF SPECIALISTS IN DERMATOLOGY

C. Guy Lane (*Journal A. M. A.*, Aug. 25, 1934), attempts to clarify any misunderstanding about the activities of the American Board of Dermatology and Syphilology and reviews the preparation for special practice which the diplomates of their board have received, indicating some of the significant changes that have occurred and the trends suggested. The trend in modern medicine has been toward specialization, and with this trend many men have entered a specialty with inadequate fundamental training, often realizing this deficiency too late to make up for it adequately as they have become increasingly busy with their practice and hospital work. There is a definite trend toward postgraduate special training in this country, either as an assistant to a well known specialist or as a resident or fellow or in a prescribed two or three year graduate course in dermatology provided in several institutions. There is also the trend toward obtaining a postgraduate degree in dermatology. In the formation of the various boards there is a definite trend toward the control or regulation of specialists. There is some feeling among authorities studying medical education that the licensing of specialists will be ultimately reached. There is no doubt of the fact that more stringent qualifications for the practice of a specialty will be required and that candidates for teaching positions and hospital staff appointments will be selected from those candidates fulfilling these higher requirements. The author concludes by stating that the physicians and specialists in dermatology and syphilology must accept the fact that these changes are in progress at the present time and must participate actively in this adjustment period. They should review the situation thoroughly and lend their aid, as individuals as well as an organization, in the program to regulate or control the specialty, perhaps best through the board that has been formed for this purpose rather than at some later period undergo the restrictions imposed on them by governmental or other outside agencies.

Allen's Invalid Home

COLUMBIA MEDICAL SOCIETY

Crystal Room, Columbia Hotel, Monday, July 9, 1934, 8:30 P. M.

Regular Scientific meeting, Program:

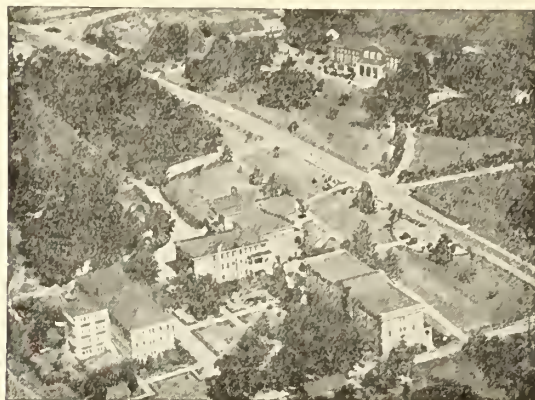
1. Diagnosis and Significance of Childhood Type of Tuberculosis—Dr. Leo F. Hall.

2. Pneumothorax in the Treatment of Tuberculosis—Dr. E. H. Thomason.

3. Phrenicectomy in Tuberculosis—Dr. Rudolph Farmer.

E. L. Horger, M.D., President.

Benj. Rubinowitz, M.D., Secretary.



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H. D. ALLEN, M.D., *Department for Women*

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Application is not painful.

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Literature on request

Hynson, Westcott & Dunning, Inc.

Baltimore, Maryland

484

THE JOURNAL

of the

South Carolina Medical Association

VOL. XXX.

GREENVILLE, S. C., SEPTEMBER, 1934

NO. 9

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Loose Stools in Infants

require extra diapering, and inconvenience the mother

Clinically, loose stools are accompanied by a dehydration which, when excessive or long continued, interferes with the baby's normal gain. A long-continued depletion of water is serious, since "the fluid requirements of an infant are tremendous. A normal infant 15 pounds in weight will frequently excrete as much as one litre of urine per day. A negative water balance for more than a very short period is incompatible with life." (Brown and Tisdall)

Moreover, when the condition is superimposed by chance infection, the delicate balance may be seriously upset, since the infant's reserves have already been drawn upon, so that resistance to infection and dangerous forms of diarrhea may be too low for safety. Every physician dreads diarrhea, which Holt and McIntosh call "the commonest ailment of infants in the summer months."

**If you have a large incidence of loose stools
in your pediatric practice —**

TRY CHANGING TO A DEXTRI-MALTOSE FORMULA

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THIS YOUNG MOTHER IS ABOUT TO MAKE A MISTAKE

MOTHER:

And please send me half a dozen tall cans of evaporated milk.

GROCER:

Certainly. What brand?

MOTHER:

Oh, no particular kind, I guess. Any brand will do.



THIS mother went to her doctor to get an infant feeding formula. The doctor wrote the formula—using evaporated milk as the chief ingredient—and sent the mother on her way with a friendly warning—"Follow these instructions to the letter!"

But . . . those instructions were just *seven letters* short!

Seven letters, B-O-R-D-E-N-S.

To the physician, the name Borden has so long been synonymous with pure, high quality evaporated milk that he is likely to take it for granted that all mothers would choose as he would. How

much better it is to make this wise choice a certainty! One word—Borden's—in the infant feeding formulas you write will make sure that your little patients get an evaporated milk that measures up to your highest professional standards.

Borden's Evaporated Milk was the first evaporated milk for infant feeding to be submitted to the American Medical Association Committee on Foods, and the first to receive the seal of acceptance. No formulas are given to the laity . . . Free to physicians—full-sized cans of Borden's Evaporated Milk. Just write to The Borden Company, Dept. SC94, 350 Madison Ave., New York, N. Y.



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THE JOURNAL

of the

South Carolina Medical Association

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EDITORIAL

FOUNDER'S DAY AT THE MEDICAL COLLEGE NOVEMBER 8

We wish to call attention again to the Founder's Day celebration to be held at the Medical College of the State of South Carolina in Charleston, November 8. The program is well on the way to completion as to details and now we urge every doctor in South Carolina who can possibly do so to spend a day in the city by the sea and enjoy the big event. As has been stated this is the first time for a Founder's Day program although the college is more than one hundred years old. Perhaps no institution in the State of South Carolina has a warmer place in the affection of the people than the Medical College. In the last analysis the College through its graduates has touched in a most intimate way practically every home in our state. The institution has rendered a service impossible to be duplicated in many of its aspects. We should attend these exercises by all means and thus show our appreciation of

the splendid work of this time honored institution. The day will be given over to clinics and we all want to go to clinics these days wherever opportunity offers. The time will be profitably spent therefore and of course the contacts with our friends most acceptable.

MEDICAL SOCIETY ACTIVITIES DURING THE FALL AND WINTER

There is a trend in many parts of the United State just now to bring about more efficient county society organization. It is conceded that when properly organized and functioning as should be the case there is no substitute for the County Medical Society. It may be a small county with only a dozen doctors in it but the problems there in many respects are just as important as in the much larger society. First of all, is the demand for just as high quality of medical service to the sick in the communities of the small counties as anywhere

else. The people in the remotest rural sections deserve the best medical attention modern medical science has to offer. There is not the slightest difference on this point. To do this it is necessary that the medical man in the small community keep up with the progress of scientific medicine and there is no better way yet devised than a first class county medical society in continuing operation. Few men are able, particularly in these times, to go away for post graduate courses invaluable as they are. On the other hand the County Medical Society may be the recipient of post graduate courses brought to it from the outside as has been the case in many states. There are numerous reasons just now for the county medical society to take on new life. First of all, of course, as we have said is the necessity for keeping up with scientific study. Then again, every county society should be on the alert on medical economics. We do not know just where we are headed for along this line but we are confident that the trend may be very much better directed by a one hundred per cent organized

profession than could possibly be the case otherwise. Be it said to the credit of organized medicine that it has stood the depression pretty well from the standpoint of membership. There has been little loss in numbers and no great demand for the reduction of dues or the modification of the ordinary routine of conducting a medical society in recent years. We all know, however, that there are outside agencies with their varied interests rather profoundly affecting organized medicine at the present time. We believe that there is no great danger of radical changes being made in the practice of medicine but if we sit idly by something undesirable may come to pass. The doctor should not be too busy to prevent his giving some serious thought to these matters now. They should be discussed rather frequently in County Society halls and every member should participate in these deliberations. The economic problems, however, should never take precedence over the scientific problems. First, last and always should be the welfare of the patient.

ORIGINAL ARTICLES

Intracranial Hemorrhage Without Paralysis

Walter R. Mead, M.D., Florence, S. C.

Spontaneous intracranial hemorrhage usually calls to mind the disheartening picture of paralyzed extremities, thick speech, hypertension and a life of mental and physical invalidism. Within the past year, however, I have had occasion to observe more cases of intracranial bleeding where paralysis was absent than where it was present. Last July, in Columbia, I reported four cases of this condition which comprised all of that class that had come under my observation during the preceding nine years. Since July I have added six more cases to this series. The striking increase in the incidence of this type of vascular accident in my own practice may be an isolated phenomenon but, in any event, the patients present such fundamentally different clinical pictures from those suffering from vascular hemiplegia that a more detailed consideration of the condition is warranted.

Spontaneous intracranial hemorrhage which does not result in permanent paralysis is produced by an extravasation of blood into the subarachnoid space where it can diffuse widely without exerting pressure enough at any one point to damage nerve tissue. Such extravasations naturally presuppose some abnormality of the blood vessels on the surface of the brain or, in rare instances, some abnormality of the blood itself as in purpura hemorrhagica. This abnormality of blood vessels in the great majority of cases is an aneurysm. In connection with the cerebral circulation an aneurysm connotes something entirely different from an aneurysm of the rest of the circulatory system where syphilis is the predominant etiological factor. Two types of aneurysms occur in the cerebral circulation—those due to arteriosclerosis and those due to developmental weakness in

the blood vessel walls. Both types of aneurysms are so small that they produce no symptoms referable to encroachment on the space of the cranial cavity and hence their presence is rarely suspected until they rupture. An arteriosclerotic type of aneurysm is naturally suspected in older individuals who have suffered an intracranial catastrophe of this sort but particular interest attaches to those young persons who suffer in the same manner and in whom it is difficult to conceive of a degenerative process of such advanced degree. It is commonly taught and widely accepted that cerebro-vascular accidents in young individuals without evidence of generalized arterial degeneration or hypertension are usually due to syphilis. It is much more probable that the great majority of such accidents result from the rupture of one or more miliary aneurysms such as Forbus has described. These little growths, averaging possibly one millimeter in diameter, may occur in great profusion in connection with the cerebral vessels of certain individuals. They do not indicate disease but simply represent points where the muscular coat of the vessel is incomplete and has been thus deficient since embryonic life. Forbus has shown that these weak points always occur at the angle formed by a branching artery and here also the maximum pressure is exerted on the vessel wall by the circulating blood. It is this type of aneurysm which is responsible for a majority of the vascular accidents which occur in young and otherwise healthy individuals.

Ohler and Hurwitz estimate that these spontaneous subarachnoid hemorrhages account for one out of every fifteen cerebro-vascular accidents including hemorrhages and thromboses. My own experience in the past year would lead me to the belief that this is a most conservative estimate. In the cases that I have seen there has been no consistent relationship between hypertension and spontaneous subarachnoid hemorrhage and not one of them has given any evidence of a pre-existing syphi-

lis. In the young individuals there is usually a history of some violent exertion immediately preceding the attack—one of my patients had just lifted an automobile onto a jack, another had thrown a heavy log onto a wagon. In the older patients mental strain or intense anxiety or sudden changes in position of the head have frequently preceded the seizure.

If there is one thing which is most characteristic of the symptomatology of spontaneous subarachnoid hemorrhage it is the sudden cataclysmic onset. The patients usually feel perfectly well when, in the course of some exertion such as running, lifting, straining at stool, cranking an automobile, etc., they experience a sudden sharp pain at the base of the skull equivalent to a blow with a blackjack. Immediately thereafter intense and unrelievable headache supervenes most often referred to the occipital region and down the neck. Vomiting of the meningeal variety accompanies the intense headache while some disturbance of mentality is the rule, either somnolence, stupor, delirium or coma.

A physical examination at this point will almost invariably reveal a stiff neck and a positive Kernig sign since the blood in the subarachnoid space, acting in the manner of a foreign substance, has begun to produce the signs of meningeal irritation. Neurological signs are most variable—paralyses, if present, are apt to involve the face and arms because the bleeding is usually basilar and these centers are lower on the cortex; most paralyses in this condition are transitory because the rapid diffusion of blood through the subarachnoid space soon relieves local pressure on nerve centers. No consistency is noted in the behavior of the deep tendon reflexes or pupils, although the eye grounds will frequently reveal some choking of the discs in addition to changes in the retinal arteries corresponding to the general state of vascular disease.

The irregular temperature which I have always observed in these cases as well as the moderate and even sharp leukocytosis is easily accounted for on the basis of the sterile meningitis which the blood in the subarachnoid space produces. Transitory glycosuria and albuminuria are common findings. The most

valuable diagnostic aid, however, is the examination of the spinal fluid.

This is always under increased tension and always gives visual evidence of bleeding. At times when the ruptured vessel is large and the bleeding has been profuse, the spinal fluid will resemble pure blood. One of Symonds cases showed over 3,000,000 red blood cells per cmm., while one of mine showed 1,450,000. The supernatant fluid is faintly xanthochromic within from three to four hours after onset and gradually assumes a deeper yellow hue for a few days, then begins to clear. All evidences of red cells disappear within a week as a rule, the fluid then being of a canary yellow color, and finally in about two weeks it is again water clear.

Needless to say the bloody spinal fluid is not diagnostic. An intraventricular hemorrhage will give a similar appearance to the fluid but these cases rarely recover, are always profoundly prostrated over a longer period of time and, if they survive, usually show residual paralysis. The ordinary vascular hemiplegia may also give a bloody tap in those instances where the hemorrhage has dissected outward through the cortex into the subarachnoid space. This is uncommon and the permanent paralysis of this lesion is the chief differential point. The combination of sudden, violent occipital and neck pain associated with stiff neck and positive Kernig sign should be the signal for an early spinal puncture. When this trio of symptoms is backed up by some evidence of mental disturbance—confusion, delirium or coma—and vomiting, there can be little doubt about the diagnosis. The clinical conditions most apt to be confused with the picture are meningitis and cerebral hemiplegia. The sudden onset and absence of severe febrile reaction differentiate it from the former and the absence of significant paralysis serves to rule out the latter.

The treatment of spontaneous subarachnoid hemorrhage aims to relieve the increased intracranial pressure and remove the blood as rapidly as possible. The increased pressure, if allowed to drift, will frequently cause death to say nothing of untold suffering from the most brutal of all types of headache. Furthermore the blood in the subarachnoid space often results in permanent disability such as epilepsy,

local motor weaknesses, mental retardation, and chronic headaches.

Spinal drainages subserve the purpose of reducing intracranial pressure and removing blood. Theoretical considerations would seem to invest this procedure with certain dangers—for instance would not relief of pressure permit reopening of the rent in the vessel wall with resumption of bleeding? This thought led many investigators such as Symonds and Dowling to employ lumbar taps as infrequently as possible. I have never observed any bad effects from frequently repeated lumbar punctures of generous proportions provided the fluid is removed slowly and stopped when the manometer registers a normal pressure. I believe spinal drainage should be employed daily until the fluid is clear. During the first week or so of treatment I also like to give 50 cc of a 50 per cent glucose solution intravenously each day and a large dose of magnesium sulphate by mouth. Just how effective these two measures are in relieving the intracranial congestion cannot be determined. Theoretically both are dehydrating devices and as such should reduce cerebral edema. As in every case of serious head injury the convalescence should be prolonged through several weeks of complete inactivity in bed—I should say six weeks is the minimum.

In a general way the principles of spinal drainage and dehydration cover the treatment in every case of subarachnoid bleeding. Not infrequently it becomes necessary to employ spinal drainage oftener than once in twenty four hours. One factor which will govern the frequency of spinal taps is the severity of headache. It has seemed to me that long standing cases of this sort—that is those who have gone several days without relief—will report dramatic improvement from the first spinal drainage but are apt to find the headache returning within a few hours. Another tap twelve hours later will usually show the spinal fluid pressure at almost the original level. Aside from the discomfort which it produces, the high intracranial pressures apparently are attended by less serious symptoms than profuse bleeding without high pressure. Those patients whose spinal fluid seems to be almost pure blood are apt to show more mental disturbance and more tendency to

the phenomena of circulatory collapse. Thus very high intracranial pressure and very bloody spinal fluid are both indications for more frequent drainages.

In general the prognosis in uncomplicated spontaneous subarachnoid hemorrhage may be regarded as fair. In the series of ten cases on which I am basing my observations, there have been two deaths. This mortality rate is as low as any I have encountered. Both of the patients in my series who died were victims of recurrences of the hemorrhage before they had entirely recovered from the original bleeding. One died with the second hemorrhage, the other with the fifth. I have yet to encounter a patient who fully recovered from the original hemorrhage who has had a recurrence. The literature is singularly lacking in information about this interesting point. Undoubtedly a careful study of the vascular lesions will show why some of these cases are destined from the start to have a fatal termination while others recover and resume life as though nothing had happened. I have the feeling that a recurrent hemorrhage indicates such advanced sclerotic disease of the vessel walls that the original rent is unable to heal securely. This opinion is based on a careful postmortem examination of one of my cases—the one who had five hemorrhages—which revealed a fairly large arteriosclerotic aneurysm of the basilar artery. In the future I shall regard a recurrence of bleeding into the subarachnoid space as a very grave prognostic sign. But until this occurs, there seems to be every reason to hope that these patients will recover quite completely without manifesting the many unpleasant mental and physical sequelae characteristic of vascular hemiplegia. Such recoveries are only obtained by pursuing a line of active therapeutic measures which stand in striking contrast to the policy of watchful waiting that is the time honored procedure in other forms of intracranial bleeding.

DISCUSSION

Dr. A. Izard Josey, Columbia, S. C.:

I am of the opinion that Dr. Mead has had a rather unusual experience in observing so many of these cases in such a short space of time, and I do not think it is such a frequent condition as his paper would seem to lead us to believe.

I should like to emphasize the fact that demonstrable arteriosclerosis and hypertension are not

necessarily present when we find this condition. It occurs at all ages of adult life. The type of onset and the ultimate outcome of an attack of subarachnoid hemorrhage depend, as one can easily see, upon the amount of bleeding and probably upon the size of the rent in the vessel wall. I have had the opportunity of observing one case of subarachnoid hemorrhage which did not have an acute type of onset. The man was able to walk into the emergency division of the hospital where I was working at the time. He was brought in by some strangers who found him walking around and had observed what was described as a Jacksonian attack. Further inquiry among his family disclosed that he had had some mental confusion and evidences of delirium for four days. It was observed that he had the findings of subarachnoid hemorrhage and this man went on to recovery. In most instances I think Dr. Mead is perfectly right in saying that the attack does come on suddenly, but this is not absolutely necessary for the diagnosis of the condition.

I have also been under the influence of the school that does not believe in routine repeated lumbar taps in handling these cases. Dr. Mead brought out the various theoretical factors which are involved in not using repeated taps. We have felt that repeated lumbar taps, changing the intracranial pressure, would tend to further bleeding. A diagnostic tap, of course, must always be made; but only where indicated by an uncontrollable headache or by signs of increasing intracranial pressure, as a lowering pulse rate, lowered respiration, and a climbing blood pressure, was a lumbar tap done.

One should always, in handling these cases, be very careful to watch for repeated attacks of bleeding; and a lumbar-puncture needle should always be kept boiled and at the side of the patient, where it can be used with rapidity in case of emergency.

I recall one case in particular, a man who was in the hospital over a period of three months. About once every two or three weeks he would have a repeated large intracranial hemorrhage, requiring immediate tapping; and on two occasions we thought that we did save this man's life by lumbar puncture. But as to the routine use of lumbar puncture in treating these cases, I feel that we had better let nature take its course in the absorption of the extravasated blood and tap only where indicated by signs of increasing intracranial pressure.

I enjoyed Dr. Mead's paper very much and think it is highly instructive.

Dr. L. Paul Barnes, Bennettsville, S. C.:

I should like to say that probably the most important feature is the difference of opinion in the two schools, whether to tap or not to tap. Personally,

after doing work with Fay and Wickerman, of Philadelphia, I am of the opinion that blood is very similar to trash in the kitchen sink and, unless removed when found, will lead to very serious trouble—Jacksonian epilepsy, frequent headaches, etc.

I should also like to say that in treating these cases the use of caffeine is valuable not only as a stimulant but it seems to reduce the intracranial pressure.

In my experience, very little harm has been done in these cases by repeated tapping of the bloody spinal fluid.

Dr. O. B. Mayer, Columbia, S. C.:

Doctor Mead has limited his presentation largely to one cause for spontaneous hemorrhage. The cause he mentioned is most commonly that of congenital vascular defect. The literature records other possible causes although they are less common. Among them are mentioned nutritional deficiencies, toxemia, blood dyscrasias, luetic arteritis, and neoplasms. These can sometimes be ruled out at once by the history and examination, so that by exclusion most of them are grouped under congenital vascular defects. This has been borne out by a number of autopsies.

Recently a case of spontaneous subarachnoid hemorrhage came under observation. The man was sitting quietly in a picture show when suddenly a violent headache developed. He was able to go home and remained conscious. However, one week later a second headache developed while straining at stool which rapidly progressed into convulsions. The etiology of his hemorrhage was considered originating from a congenitally weak vessel.

Dr. Mead, Closing the Discussion:

I want to thank these gentlemen for their discussion. In closing, I simply want to say that I one time unwittingly permitted nature to take its course in one of these cases. Some nine years ago I was called to see a young man who had had an attack resembling this. A spinal tap was done, and a great deal of blood was found. I knew very little about the condition then (and very little now, for that matter, but my ignorance at that time was profound), and I had no particular suggestions to make about his treatment. At the present time that young man comes to me at least twice a year with the most disabling headaches that I have ever seen. They strike him about once a month and lay him up completely. He has been a semi-invalid ever since his original hemorrhage. That one case has impressed upon me the futility of allowing nature to take its course, because I believe, with Dr. Barnes, that blood does prevent normal circulation of the spinal fluid. So I think we should do drainage, and until I can forget this young man I shall continue to do drainage.

The Trends in Medical Economics

R. G. Leland, M.D., Chief of Bureau of Medical Economics, American Medical Association, Chicago, Illinois.

PRESIDENT ABELL:

At this time Dr. Hines, our Secretary, will introduce the invited guest who will speak at this hour. Dr. E. A. HINES, SENECA:

Mr. President and gentlemen: It becomes my esteemed privilege to introduce one of the world's great speakers in his particular line. I have been a member of the American Medical Association since the memory of man runneth not to the contrary, and I have been in the House of Delegates about twenty-four years. I have visited the headquarters of the American Medical Association perhaps fifty times in the last twenty-five or thirty years; I have spent days around there, in one way or another. I have been intimately associated with the builders of the American Medical Association and have watched the builders of the bureaus around there. Some of us, long ago, became interested in having a bureau of medical economics, and some of us said so, on the floor of the House of Delegates and in other places. But it seemed not wise to them to establish a bureau of medical economics until comparatively recent years. It appeared in my early years that to mention money in a medical society was like shaking a red rag in the face of a bull. But that time has passed. I have seen to it that in our Association we have had a committee on medical economics, and the time has come when it has seemed wise to establish in the American Medical Association a bureau of medical economics. Dr. Leland, who is going to speak to us now, and his bureau are in the most satisfactory position to accumulate information on medical economics of any organization in the world—unbiased, untrammled, fearless. We are all right now scientifically; we are progressing; but we need this information on medical economics. Making a living is a serious matter to all of us. We are not under any obligations to individuals, to foundations, to laymen, to anybody, in this bureau of the American Medical Association except ourselves, and our initiative and our wishes in the study of medical economics. So Dr. Leland will interpret to you now how we feel, as members of the American Medical Association, about the whole vexed problem of medical economics. Dr. Leland, I am happy to introduce you to this distinguished audience.

Mr. President and members of the South Carolina Medical Association:

It is a pleasure to be with you; I speak for

the American Medical Association headquarters, as well as myself, when I voice appreciation of the invitation which you have given us to be with you for the discussion, for a few brief moments, of some of the questions of medical economics which confront the entire medical profession today.

Your Secretary is correct in his statement that a few years ago it would have been impossible for medical societies and medical men to have discussed openly and fearlessly the subjects of medical economics as they are discussed today. I recall very well what was told me in San Francisco about three years ago about the situation there some years previous to that time, when it was thought best to discuss some questions of medical economics in the San Francisco medical society. At that time it was necessary to secure the signatures of three-fourths of the members of the San Francisco medical society to a petition before this subject could be brought up on the floor of the house or of that society. Now, these things are very much changed, and medical economics is just as much a part of the practice of medicine as the scientific basis of diagnosis and therapy. It must necessarily, therefore, enter into the program and the thinking of every medical society, county and state, and must eventually become a part of the practice of every physician if he is to act in an intelligent way in the economics of the practice of medicine, as well as in the scientific phase.

The medical profession, I need not emphasize, has felt during the past few years a very considerable part of the shock of the financial situation through which we have passed; and it is during those years that our attention has been fixed more than ever before upon some phases of the practice of medicine which are economic in character, which we have sensed to a certain degree in years past, but which during these years of depression have become more and more troublesome, more and more agitating, even to the point of danger or of becoming destructive influences in various sections of the country.

Medical economics is very properly a subject which can be incorporated as a part of the program of every county and state medical so-

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ciety. As a matter of fact, it ought to be a part of the programs extending throughout the year, depending entirely upon the importance in the various communities which economic problems bear to the practice of medicine. But already, in more than a hundred counties, and in a large number of states, medical economics committees have been appointed and are now working to a very considerable degree.

The attention of the medical profession in these last few years has been focused more sharply than ever on certain forms of medical practice which had their origin some years ago and which have received altogether too little attention at the hands of physicians. I shall refer particularly to a few of these subjects; for example, contract practice. The Council of the American Medical Association has defined contract practice in these terms: "By the term 'contract practice,' as applied to medicine, is , to a corporation, organization, or individual to furnish partial or complete medical service to a group or class of individuals for a definite sum or for a fixed rate per capita." This practice has existed in this country from the late years of the eighteenth century. No doubt it was necessary and presumably an ethical practice, during the early years of plantation work; it was the kind of practice that followed the pioneering projects through the early years of the development of railroads, and the mining and lumbering industries in the West. And wherever large groups of workmen were required to be kept at work at some distance from adequate medical service it was no doubt necessary; it was legitimate and presumably an ethical kind of medical practice. But as the exigency or the emergency of the pioneering projects died away, we find that contract practice was carried into the more populous districts, into communities where adequate medical services were already available, where it was unnecessary to carry out medical care in that particular way; in fact it is the way in which contract practice is carried out that makes it unethical. All contract practice can not be considered unethical or unnecessary, because nowadays there are communities in which physicians would not be justified in taking up their abode and depending upon a small community

for their livelihood without some guaranty of at least a minimum income. Under those circumstances—it is necessary that those people be provided with medical services. That kind of contract practice is not considered illegitimate or unethical.

In my opinion, the kind of contract which we consider unethical has been the cause of spoiling more good medical men than any other one form of medical practice. But all contracts must not be considered, en masse, as bad contracts. This is what the Council says about contract practice: "When the compensation received is inadequate, based on the usual fees paid for the same kind of service and class of people in the same community; when the compensation received is so low as to make it impossible for competent service to be rendered; when there is underbidding by physicians in order to secure the contract; when there is solicitation of patients, directly or indirectly," then contracts which have any one or more of these conditions become dangerous, destructive, and unethical. It is because of solicitation, underbidding and all of the attendant evils of advertising, of racketeering, of unfair commercial competition with other physicians in the community, that makes contract practice the danger that it is to the practice of medicine today. Therefore I mention this as one of the phases of medical economics which can be and ought to be studied by every medical society in the midst of which contract practice exists, with a view to improving that situation.

Another situation which demands some study and determination as to its course is the care of the indigent sick. We think we have traced the laws for the care of the indigent sick in the United States to the Elizabethan poor law, which was adopted by the State of New York and copied by the other states. From time to time there have been changes in these laws, but we have not yet freed ourselves from the competitive bidding on the part of physicians for county or city positions and from the political aspects which make the care of the indigent entirely a different matter from the regular practice of medicine, in which the patient is given opportunity to choose his physician freely and independently.

Another subject of Medical Economic in-

terest is workmen's compensation. Forty-four states have workmen's compensation laws. It is the practice of workmen's compensation which comes nearest to the type of insurance as practiced in European countries. Contract practice is one of the types of medical care that is associated very closely with workmen's compensation. In various states physicians either did not take the interest in or were not consulted or were in some way or another shunted about so that they did not have the proper representation and the proper voice in the passage of these laws. Just recently the Medical Society of the State of New York has attempt to modify the workmen's compensation laws of that state so as to make them much more favorable to the injured workman and to the medical profession.

We have heard from time to time, in almost all parts of the country, perhaps not in the medical society meetings, always, but in the physicians' offices, in the corridors of hospitals, in washrooms, and on the street, various discussions of clinic and hospital abuses. Some of them perhaps are entirely justified; some of them perhaps are based upon hearsay and the lack of absolute facts. Nevertheless, it is a subject which deserves a very careful, honest, thorough, unbiased examination by physicians, to determine to what extent, if any, there is abuse of hospital and of clinic privileges. We believe that physicians, ought not to countenance a system or kind of medical care that contributes to the pauperization of those who are willing and are able to pay for medical care.

There is a phase of medical practice which has been growing in the past quarter of a century which we believe in some sections has very definitely encroached upon the legitimate practice of medicine; namely, some of the phases of health-department work. Perhaps in this state you have been fortunate in avoiding some of the encroachments upon medical practice by health-department programs. In other places physicians have not been so fortunate. It is, I believe, the consensus of opinion that health departments are not licensed to practice medicine, that the work of the health department and the work of the medical profession ought to be so integrated, so co-ordinated, that there need be no friction, there

need be no question about the division of responsibility and the actual carrying out of programs. I believe that the medical profession, by and large, has been just a little slow to adopt, as a part of the regular, independent practice of medicine, some of those phases of preclinical medicine which are included in many of the health-department programs. Perhaps health commissioners have seen more clearly than some of the practitioners of medicine some of the things which are needed for the community, and perhaps the practicing physician has been a little too reluctant to take up such features of preclinical medicine as immunization, examination of school children and food handlers, the periodic health examination—all legitimate fields which ought to be opened up for the general practitioner or for the specialist, as the need may be. You have perhaps heard of the program which has been adopted in Detroit, under which much of the work which was formerly done by the health department has been turned back to the practitioners of medicine. And the program is working.

In recent years we have found group hospitalization developing, and a certain sentiment in various parts of the country in favor of health insurance—all of which contribute a very definite part to the unrest among physicians as to the future practice of medicine. Will group hospitalization be limited to the hospitalization program only? Will the people who are covered by hospitalization contracts be given merely the hospital care which those contracts call for? Or, as these fields become larger and larger, will they add medical service to hospital care, thereby providing a complete service to those who hold hospital-care contracts, and parceling out that service to a few physicians at the expense of most of them, thus developing unfair competition with the rest of the physicians in the field?

What is to become of all these programs—workmen's compensation, hospitalization, care of the indigent; what will happen to the young physician just coming into the practice of medicine? Is it going to be made impossible for him, as part of the new generation of medicine, to take his place among us and practice medicine as he should practice it? As soon as he receives his license, he becomes a

part of the medical profession; certainly we, who have devoted our lives to the preservation of those principles and those traditions concerning which we are so jealous, ought to take some notice of and make some provision for the safety of the oncoming generations of physicians. These years have emphasized the necessity for strength in the medical profession, strength not only in numbers, though that is important, but strength in attitudes, strength in the adherence to principles on the part of medical societies—county, state, and national.

Never before, in my opinion, has it been necessary to emphasize more strongly the importance of the principles of ethics, concerning which we have fought so long. We have examples now, in all the codes that have been adopted in the last year or more among the industries of this country, that industry now has at last recognized that there is but one way in which codes of fair competition can be operated, and that is for each member in a particular industry to play fair with every other member in that industry. There is nothing so very obscure or abstruse, about that. A code (and I think our principles of ethics used to be called a code) is little more than the principles of fair practice which have existed in the medical profession for about three thousand years.

Never before has it been quite so necessary, either, to emphasize the quality of medical care as of primary importance to both the public and the medical profession. During these times the quality of medical care must be maintained. We must not, because of the stress of economic times, reduce the quality of care because of a decreased ability of some patients to pay. Quality must be maintained.

I presume that you are hoping that I might give you some kind of prescription, some kind of solution of all these vexing, disturbing, and dangerous problems. It has been stated from time to time, that the American Medical Association ought to devise some kind of master plan or proposal that could be applied to any portion of the country where trouble seemed evident. I think you will agree with me that the conditions in South Carolina are not exactly the same as those in Texas or Minnesota or Washington or Maine or Massachusetts. It

is not possible to devise a system of medicine which departs markedly from our conventional type of medical practice, which has for its primary objective the freedom of choice of physicians or control of medical practice by physicians, and the protection of individual and public welfare. It is not possible to devise a new plan that could be utilized by the medical professions of the various states and work equally well in all parts of the country. In my opinion, the only safe or sane method of procedure is first to determine those principles upon which the practice of medicine ought to continue under any conditions in any portion of the country. In that connection, some time ago we directed our attention to the preparation of some of the principles which should govern the practice of medicine under any conditions. This publication is entitled "An Introduction to Medical Economics." I am leaving this copy with your President, and other copies are available to anyone who wishes to examine them. In my opinion, the determination of principles is the first necessity, the details of practice according to the needs of every particular and separate community can then be determined.

All of this requires much study; it requires that we approach this subject of medical economics in a similar manner to that which has always characterized the approach of the medical profession to scientific subjects. It requires that we, as physicians, continue in our study of medical economics in a similar way to that in which we have studied science, with minds that are not biased, minds that are free from preconceptions, minds that are free from prejudice, free from antagonism; and, by all means, in our studies of medical economics we must omit the antagonistic personalities that sometimes enter. We need to study Medical Economics in a perfectly honest, sincere, and complete fashion.

These studies should indicate, wherever possible, the newer fields of medical practice that ought to be entered by general practitioners and by specialists. They ought to indicate, honestly and without prejudice, those weaknesses in every community in which weaknesses are found. If it is considered necessary that the care of the indigent sick be changed,

then that is one question to which you may direct your attention, with all fairness to yourselves, and certainly with the highest regard for the indigent sick, that they be given an equal quality of medical care with those who are able to pay.

The medical profession has no desire or intention to obstruct any method of administering medical care that is superior to the methods that we are using today; but we should not, in my opinion, change the present form of medical practice unless the new and changed methods of care which the change brings in are superior to the methods which we are using today. We are never justified in making a change merely for the sake of doing something. A change ought to bring in something superior to that which exists today, if the change is justified.

After having made a survey, which, in reality, is our diagnosis of the medical economics condition, we are then ready to recommend some kind of appropriate treatment of the medical economics ills, where they exist. I would have you keep in mind, if possible, that the chief objective toward which we are directing our effort in medical economics is the protection of the public welfare. That form of practice which is best for the public is best for the medical profession.

Recently there was presented to the New York Academy of Medicine by the Milbank Foundation a plan which, if adopted, would completely socialize medicine in the state of New York. It would be a short and easy step, after medicine were socialized in one state such as New York, to push that effort, by various methods which are best known and most vigorously used by these foundations, to all the sections of the United States. Already the State of Washington has adopted medical-service bureaus which are using the principles of insurance in that state. The State of Oregon has a law, which legalizes the organization of hospital so-called associations. It is contemplated that a health-insurance law may be passed in the State of California at the meeting of the next legislature. The State of Michigan has conducted a medical economics study and is now about ready to recommend a form of vol-

untary health insurance to be applied in certain sections of that state shortly.

I would have you bear in mind that not all of this socialization of medicine movement comes from without medicine. There is, in Brooklyn, an organization known as the League for Socialized Medicine, composed of physicians of Brooklyn. It is time that the medical profession realize that there is something very serious going on within and without the profession and that if we are to continue as a profession we must have strength in the form of numbers, in the form of ideas, and certainly in the form of ideals. If we are to continue as a medical profession and not to degenerate into a trade, we ought to see to it that we enable physicians to compete on a professional basis rather than on a commercial basis. It has always been the case, until recently, that the physician in the community has appealed to the popular mind through his professional efforts, his scientific attainments, and his ability to handle sick people, and not on the commercial basis. If we are to continue as a profession, interested in the welfare of the communities in which we live, we must maintain that professional competition rather than a commercial one.

All of this, perhaps, seems a bit vague. I have not been able to touch upon many subjects in medical economics; that would require entirely too much time. I am leaving one of our recent publications on new forms of medical practice in which many of the various lay schemes using medical service as a commodity, easily sold for a profit, are described. I hope that just the brief amount that I have been able to say about medical economics will be sufficient to interest you in forming in every county a medical economics committee, devoted to the careful, thorough, honest, complete study of whatever medical economics problems there may exist in that community. I hope that you will feel that the Bureau of Medical Economics is your bureau. We have an immense amount of information that has been collected in the last three years, and we will gladly make it available to you. I believe that in these times, when there are being exerted from various quarters efforts to socialize medicine in advance of the socialization of any other of the services, any

other of the phases of society, the medical profession can rightly unite in resisting all of those forces and those efforts which would destroy medicine as a profession.

I thank you.

(Applause.)

DISCUSSION

President Abell:

I thank you, Dr. Leland, for giving us this most timely and able address. We appreciate it very much, and we hope to profit by it.

Dr. S. E. Harmon, Columbia:

Mr. President and gentlemen: I am not going to discuss the gentleman's talk, or paper, but I want to make a few remarks. As your Councilor I have, in a feeble way, tried to study this problem a little, and in our county society in Columbia I caused a committee to be created known as the standing committee on economics, and we studied it in our feeble way with this committee. I selected for and asked the society to appoint on this committee men who, I was sure, had the interest of the medical profession as well as the public at heart and men who would diligently study this problem as best they could and function honestly for the benefit of all. This committee was created something like a year ago, more or less; and our impression was that this was such a massive field of study that it would be impossible for any man or any set of men to make anything out of it except by having this committee as a standing

committee to study any problem that might arise at any time and handle it to the best interests of all at that time. Those of you who have studied this at all can readily see that it is not possible for any man or any set of people to study this, grasp it, digest it, analyze it, assimilate it, with any degree of success, because it is too much.

Now, what I had in mind was this—that we should have this committee, a standing committee, in each county and in the state. And, gentlemen, those committees should be composed of your very best men, men who have ability, men who have moral courage to do their duty regardless of what confronts them, to study any problem that comes up, like contract practice, handling the indigent sick, or any matter pertaining to the handling of the medical care of our people, matters that come up in hospitals sometimes; and find out what is the best principle to work on.

I have enjoyed Dr. Leland's discussion more than any I have heard in a long time. He stressed the point, the principles of ethics. Ethics is nothing but correct acts, doing our duty. He also stresses the point of numbers. Numbers are all right, provided they are of the material that they should be, that will function to the best advantage of all.

So much for that. Mr. President, if you will permit me, I should like to make a motion just at this time. I should like to move that our Secretary be instructed to secure a copy of this pamphlet from the American Medical Association and send a copy to each councillor and each secretary of our component medical societies of the state.

(This motion was seconded and carried without a dissenting vote.)

NEWS ITEMS

The South Carolina Urological Society will meet in Columbia, October 8, at 4 P. M. under the Presidency of Dr. H. M. Daniel of Anderson. The invited guest for this meeting is Dr. M. L. Boyd, Associate Professor of Surgery (Urology), Emory University, Atlanta, Georgia.

The Fourth District Medical Society met at Union, September 27. About 75 doctors were present. The guest of honor was Dr. S. E. Harmon of Columbia, President Elect the South Carolina Medical Association. The following officers were elected, Dr. Arthur McElroy of Union, President, R. M. Pollitzer, Retiring Secretary, Vice President and Dr. George

Wilkinson of Greenville, Secretary-Treasurer. The next meeting will be held in Gaffney.

Dr. Edgar A. Hines, Secretary-Editor of the South Carolina Medical Association attended the meeting of State Secretaries and Editors under the auspices of the American Medical Association held at Chicago, September 21, 22. A write up of this meeting will appear in the Journal in October.

Dr. J. H. Cannon a member of the Editorial Staff of the Journal and Associate Professor of Medicine at the Medical College in Charleston is taking a post graduate course in cardiology at the Massachusetts General Hospital, Boston.

SURGERY

WM. H. PRIOLEAU, M.D., F.A.C.S., CHARLESTON, S. C.

"INGROWN TOENAILS"

There are a number of apparently simple conditions which generally speaking are not treated satisfactorily. Chief among these is ingrown toenail. The fact that it is not given proper consideration combined with an ignorance of the principles involved accounts for the frequent bad results. In order to ascertain the status of the present day treatment Dr. E. L. Keyes of St. Louis reviewed 110 operations performed by twenty-six different surgeons. (J. A. M. A. 102:1458 May 5, 1934).

The rate of recurrence was 13.6 per cent, varying from 5 to 75 per cent according to the operation. The simplest procedure consisted in avulsion of the imbedded portion of nail with no attempt at removal of the matrix. Whereas this gave temporary relief, the recurrences were over 75 per cent in which cases a secondary operation was necessary. So this procedure can not be advocated.

The most radical type of operation commonly performed was the removal of a strip of nail the underlying matrix and the neighboring nail wall with the ulcer. A less radical but common type of operation was removal of a strip of nail with the underlying matrix, leaving intact

the nail wall and ulcer. In principle both of these types should give satisfactory results but in this series they were followed by 5 to 10 per cent recurrences. This is explained as the result of incomplete removal of the matrix due no doubt to difficulties attendant upon inadequate local anesthesia and incomplete haemostasis.

Editorial Note:—While the author does not advocate any particular operation, from a study of this series it appears that the Winograd type of operation is to be preferred for most cases. It is as follows:—local novocain anesthesia, especially of the plantar nerves; a broad tourniquet evenly applied at the base of the toe; a small incision through the eponychium for exposure, and excision of a strip of nail with its matrix, being careful that the latter is thorough removed; hemostasis obtained by a tight gauze bandage before removal of the tourniquet. After thirty minutes the blood soaked dressing is changed and a small piece of petrolatum gauze placed over the incision, to prevent undue sticking. Two or three days bed rest will promote primary union and hasten healing. If performed properly this operation should give thoroughly satisfactory results.

BOOK REVIEWS

SURGICAL CLINICS OF NORTH AMERICA:

Issued serially, one number every other month. Volume 14, Number 4. Chicago Number—August 1934. 288 pages with 88 illustrations. Per clinic year February 1934 to December 1934. Paper, \$12.00; Cloth, \$16.00 net. Philadelphia and London: W. B. Saunders Company, 1934.

In this number there is an excellent symposium on plastic surgery by Frederick B. Moorhead, Summer L. Koch, Carl Beck and William C. Beck, Joseph and M. Reese Guttman and Dr. Gatewood. There is a symposium on peptic ulcer also and a good article on the surgical treatment of tuberculosis by Hedblom and Van Hazel.

SURGICAL CLINICS OF NORTH AMERICA:

(Issued serially, one number every other month.) Volume 14, No. 1. (Philadelphia Number—February 1934) 226 pages with 62 illustrations. Per Clinic Year (February 1934 to December 1934.) Paper, \$12.00; Cloth, \$16.00 net. Philadelphia and London: W. B. Saunders Company, 1934.

MEDICAL CLINICS OF NORTH AMERICA:

(Issued serially, one number every other month.) Volume 17, Number 6. Chicago Number—May 1934. INDEX VOLUME. Octavo of 266 pages with 38 illustrations. Per clinic year July 1933 to May 1934. Paper \$12.00; Cloth, \$16.00 net. Philadelphia and London. W. B. Saunders Company, 1934.

FRACTURES, DISLOCATIONS AND SPRAINS,

by J. A. Key, St. Louis, and H. Earle Conwell, Birmingham, Ala. Mosby & Co., St. Louis, publishers.

These authors are in active practice in the treatment of bone conditions. The book is divided into two parts, I Principles and General Considerations; II Diagnosis of Special Injuries.

In part I, methods, equipment, technique of examination and treatment are given. The process of repair of fractures is described. Infiltration anesthesia for reduction of fractures, the importance of restoring function, methods of manipulation, closed and open reduction, physiotherapy, are clearly presented; as are also, complications attending bone injury. The chapter on pathological fractures shows that the authors have a broad view of bone disease in relation to systemic disorders. The discussion of these subjects is sound. The section closes with chapters on the medico-legal aspect of skeletal injuries.

Part II begins with a chapter (XI) by the late Dr. Dowman of Atlanta on brain injury in fractures of the skull. This chapter is excellent. Any physician would profit by reading it. Chapter XII on fractures of the jaws and face by Dr. J. B. Brown, of St. Louis, is also of high merit. The authors have shown good judgment in having these two chapters written by specialists. The succeeding chapters, devoted to injuries of the spine, shoulder, arm, elbow, hand, thorax, pelvis, femur, knee, leg, ankle and foot, are all presented clearly and thoroughly. The authors give their own experience, and the methods they have found most useful, although not neglecting others' procedures. Skeletal traction is extensively used. Delbet's splint, Hoke's, Boehler's methods—we expected to find Roger Anderson's as well—are described in detail.

The book is well done. The illustrations are good, the print clear. It is an excellent guide for anyone treating fractures. Having personal acquaintance with the authors, and knowing the quality of their previous contributions to surgical literature, we looked forward with eagerness to the appearance of their joint effort. In this we are not disappointed. They have more than met our expectations.

G. T. Tyler.

- - SOCIETY REPORTS - -

COLUMBIA MEDICAL SOCIETY

Crystal Room, Columbia Hotel, Monday,

August 13, 1934, 8:30 P. M.

Regular Scientific Meeting

PROGRAM

1. A Clinical Case Report—Dr. F. On Weston.
2. Some Modern Views of the Economic Control of Malarial Fevers—Dr. Bruce Mayne, State Hospital.
Benj. Rubinowitz, M.D., Secretary.
E. L. Horger, M. D., President.

RIDGE MEDICAL SOCIETY

The Ridge Medical Society met the twentieth of August at 7:40 o'clock with a good attendance including the following named visitors.

Drs. E. Cooper, E. H. Thomason and Leo F. Hall of the State Tubercular Sanitarium, F. R. Byrd of Ridge Spring and A. R. Nicholson of Edgefield.

Drs. A. R. Nicholson of Edgefield and E. P. Taylor of Batesburg were elected members of the society.

Interesting case reports were made by Drs. King, Cooper, Frontis and W. P. Timmerman which elicited much discussion of varied types.

Dr. Leo. F. Hall read an interesting and instructive paper on Diagnosis and Significance of the childhood type tuberculosis.

Dr. E. H. Thomason also read an instructive paper on artificial pneumothorax in tuberculosis.

Drs. Hall and Thomason also demonstrated X-Ray pictures of conditions of diagnosis and treatment.

These papers were discussed by Drs. Cooper, King, Brunson and R. H. Timmerman.

Dr. King read a very practical paper on Amebic and Bacillary Dysentery which was highly commended.

Various experiences and observations were narrated by Drs. Frontis, Waters, Wise, W. P. Timmerman, Nicholson, Ballinger and Hall.

Owing to illness in Dr. King's family the Ladies Auxiliary was entertained by Mrs. E. C. Ridgell.

Dr. Nicholson expressed his pleasure in reuniting with The Ridge Medical Society.

Supper was served in The Rutland Hotel where short impromptu speeches were made by our visitors.

The Sanitarium Doctors invited us to attend the tubercular meeting there in September.

W. P. Timmerman, Sec'y.

MINUTES SECOND DISTRICT MEDICAL SOCIETY

The Second District Medical Meeting was called to order at The Rutland Hotel at Batesburg, July 31, 1934, by the President, Dr. J. H. McIntosh.

Dr. W. R. Barron presented two interesting urological conditions with specimens.

Dr. T. A. Pitts presented an extremely interesting and unusual paper—Factors Influencing Gastric Function. Dr. Pitts thinks that on the stomach is the correct position for patients with gastric ptosis, after meals. He compared the vertebral column to a mule's back over which a bag of corn was placed in its obstruction to the process of the stomach's emptying when the patient was on the back and contended that an angulation was produced obstructing emptying when the patient was on the right side and he recommended surgery in the cases unimproved by any other method. This paper was discussed by Drs. Harmon, Taylor, Rodgers and Smith.

Dr. Hugh Smith from Greenville, the invited guest, spoke on constipation. He said the American public was very susceptible to the high pressure advertising of purges. The number of stools are directly dependent upon the amount of indigestible bulk in the food, and, before a diagnosis should be made, the time of passage through the gastro-intestinal tract should be checked with carmine. The majority of cases of true constipation are due to the fact that the normal urge is not heeded, and usually begins in the school age.

Dr. Smith took up each type of constipation in order and demonstrated each with lantern slides. Toxic absorption seldom, if ever, occurs in the normal large bowel, even though stools are not as frequent as in the usual individual, but is a frequent occurrence where the mucosa has become congested with the persistent use of purgatives.

This paper was discussed by doctors W. P. Timmerman, F. M. Durham, J. H. Taylor. It was then closed by Dr. Smith.

Dr. S. E. Harmon's paper on Medical Economics pled for a strong, constructive, organized medicine to study and work out the problems of the future, and cited these resolutions.

At this point in the meeting the message arrived of the untimely death of Dr. P. V. Mikell, and the assembled body, in reverence stood, with bowed heads.

The Gall Bladder Complications of Typhoid Fever presented by Dr. N. B. Heyward was made more interesting by presenting four cases. The diagnosis was made by increase of polymorphonuclear count, tenderness over gall bladder and rigidity of right rectus. Treatment is with ice cap and morphine and sometimes operation.

Typhoid bacilli sometimes remain in the gall blad-

der for years after apparent recovery from typhoid fever.

This paper was discussed by Drs. F. M. Durham, Julius H. Taylor and James A. Hayne.

The last paper was Prostatic Resection by Dr. W. R. Barron. A large part of the work toward perfecting prostatic resection has been done in the southern states and diagnosis is a most important part of prostatic surgery. Prostatic resection should not be taken lightly, as most of these cases have already received irreparable damage to heart and kidneys. Just as much attention should be paid to stabilizing them as if a suprapubic prostatectomy was to be done. Most writers show a high mortality in the first hundred cases of transurethral resection.

The meeting was now adjourned to the dining room where dinner was served and officers were elected. Dr. F. E. Asbill was elected President, Dr. E. W. Barron, Vice-President, and D. F. Adcock re-elected Secretary and Treasurer.

D. F. Adcock, Secy.

RESOLUTIONS ON DEATH OF DR. CLEGG

September 13, 1934.

Whereas God in his infinite wisdom has seen fit to take from us in a most tragic manner our beloved

colleague, Thomas Boykin Clegg, M.D., and

Whereas we both as individuals and as a body feel deeply his loss to us, and

Whereas we believe and know that his place in Greenville medicine will be hard to fill, and

Whereas had he been spared, he would, by reason of his bright and cheerful disposition, his earnestness of purpose and his unusual ability, have had his life filled with usefulness and good works,

Be it resolved by the Medical Staff of the Greenville City Hospital, in regular meeting assembled that:

1. We submit to the Divine will, without in any wise understanding the reason for this bereavement.

2. We extend to his beloved wife and his parents our profound sympathy.

3. We order that these resolutions be spread upon a page in the minutes of our meetings.

4. We order sent to the Journal of the South Carolina Medical Association a copy of these resolutions.

J. Decherd Guess, M. D.

Hugh Smith, M. D.

W. W. Edwards, M.D.

Committee.

R. A. Blakely, M. D., Secretary
City Hospital Staff.

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FOUNDER'S DAY NUMBER

MEDICAL COLLEGE

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Loose Stools in Infants

require extra diapering, and inconvenience the mother

Clinically, loose stools are accompanied by a dehydration which, when excessive or long continued, interferes with the baby's normal gain. A long-continued depletion of water is serious, since "the fluid requirements of an infant are tremendous. A normal infant 15 pounds in weight will frequently excrete as much as one litre of urine per day. A negative water balance for more than a very short period is incompatible with life." (Brown and Tisdall)

Moreover, when the condition is superimposed by chance infection, the delicate balance may be seriously upset, since the infant's reserves have already been drawn upon, so that resistance to infection and dangerous forms of diarrhea may be too low for safety. Every physician dreads diarrhea, which Holt and McIntosh call "the commonest ailment of infants in the summer months."

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EDITORIAL

FOUNDER'S DAY AT THE MEDICAL COLLEGE, NOVEMBER 8th

As noted in the August issue of the Journal the Medical College of the State of South Carolina will initiate its annual Founder's Day celebration on November 8th, the one hundred and tenth anniversary of the first opening exercises of the College.

There will be special clinics at the hospital during the day as follows:

9-10 A. M.—Pediatrics clinics.

10-11 A. M.—Medical clinics.

11 A. M.-1 P. M.—Surgical and Obstetrical clinics.

3-4 P. M.—Ward and O. P. D. rounds.

4-5 P. M.—Pathological conference.

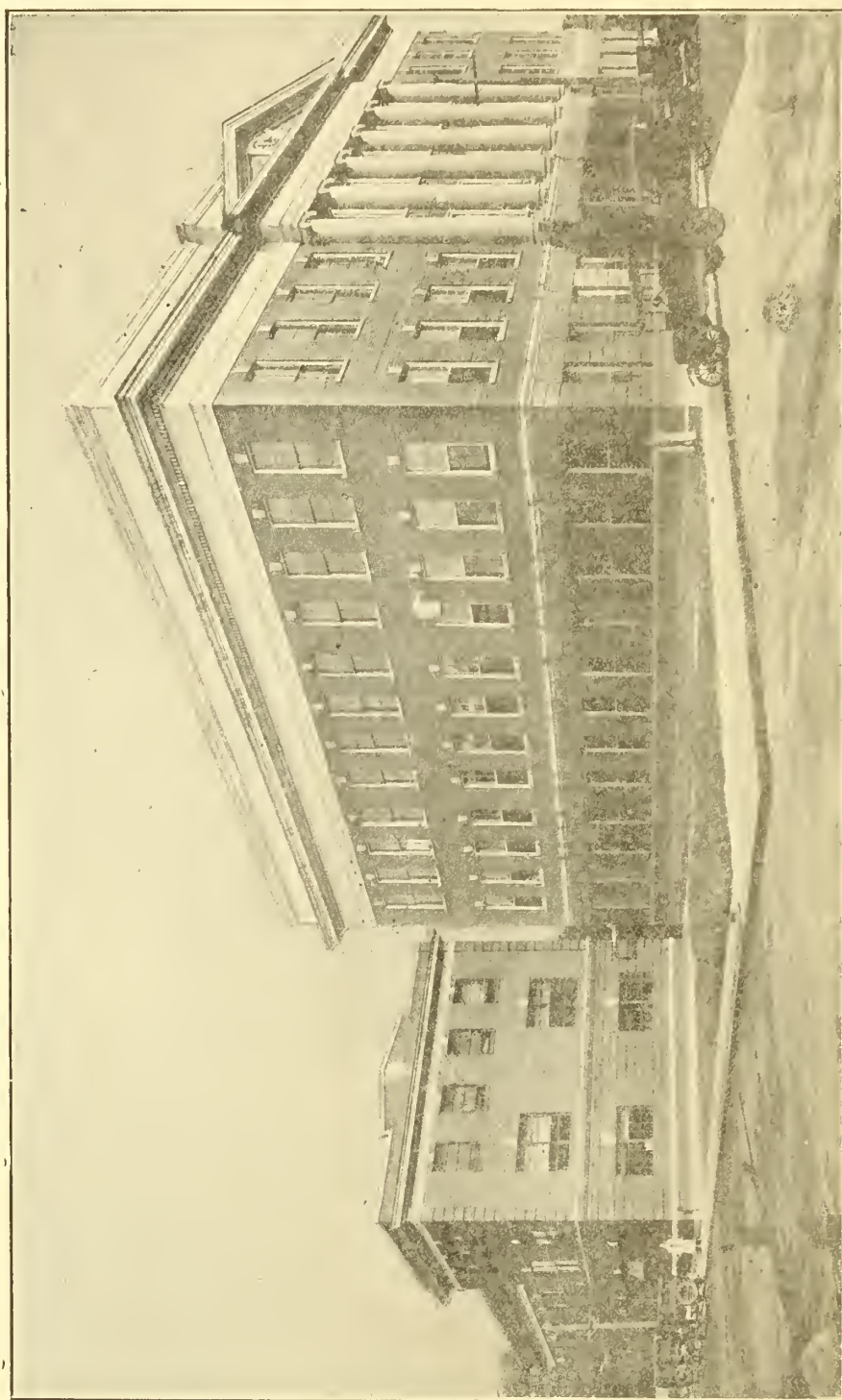
At the evening banquet the Founder's Day Lecture will be delivered by Dr. Stewart R. Roberts of Atlanta, whose subject will be "Neurocirculatory Asthenia."

The members of the profession of the State are cordially invited to attend the celebration, and there will be representatives from the ranks of the educators of the State in attendance.

Of the founding of the College and the first opening exercises the Centennial Memorial Volume of the Medical College has the following to say:

"In the summer of 1821 Drs. H. R. Frost, James

Ramsay and Samuel Henry Dickson made up their minds to establish in the city of Charleston, 'under whatever mode or arrangement they might find most practical, a School of Medicine.' Their plan was to lecture to the students in the public institutions of the city in the hope of collecting a class and of gaining thereby a sufficient reputation to enable them to obtain a charter. Before this plan was put into operation, however, Dr. Thomas Cooper, the talented and versatile president of the South Carolina College, in an address before the Medical Board of Columbia pointed out the advantage of attempting to establish a Medical College in South Carolina, and in a letter to Dr. John Wagner, of Charleston, under date of February 12, 1822, urged the cooperation of the medical profession of this city. A communication on the subject from the Medical Board of Columbia was received by the Medical Society on March 1, 1822, and referred to a committee composed of Dr. Joseph Johnston, Dr. Manning and Dr. M. Holbrook, who reported favorably upon the plan but differed with Dr. Cooper in regard to the location of the school. The committee was of the opinion that Charleston and not Columbia was the proper place for the proposed college. In accordance with this report a memorial drawn up by Dr. James Moultrie, Jr., was presented to the legislature at the next session praying



The Medical College of the State of South Carolina, Charleston, S. C.

for the incorporation of a Medical College with an appropriation to provide buildings and apparatus, "and at least transient salaries for Professors to be elected." This memorial was unsuccessful on account of the appropriation which was requested. An effort was then made to induce the trustees of the College of Charleston to receive into the faculty lecturers on the medical sciences and to grant diplomas, but this proposal was received unfavorably. Drs. Ramsay and Dickson during the summer of 1823, determined, notwithstanding these discouragements, to persist in their efforts and inaugurated a course of lectures in accordance with their original plan, the former upon Surgery and the latter upon Physiology and Practice of Medicine which was so successfully carried out as to receive the thanks and approbation of the medical society. The success of this experiment induced them to continue their efforts to obtain from the legislature the authority to establish a college and another memorial was presented in December, 1823, praying that the Medical Society of South Carolina be authorized to organize a medical school under the name of The Medical College of South Carolina, the expenses of which were to be borne by the Society. This time the petition which did not call for an appropriation was granted, and, on January 1st, a committee to organize the contemplated college was appointed. This committee was composed of Drs. S. H. Dickson, T. G. Prioleau, H. R. Frost, Edmund Ravenel, and James Moultrie, Jr. Although this successful outcome was due directly to the efforts of Dr. S. H. Dickson and his associates, it is nevertheless true that the impetus given the movement by Dr. Cooper, as acknowledged by Dr. Moultrie, was undoubtedly the most important determining factor.

The most serious difficulty to be overcome by the new organization was that of securing the necessary funds with which to provide lecture and dissecting rooms, museum and apparatus. Anticipating failure the majority of the Medical Society were unwilling to assume any financial responsibility and consequently it was agreed that the professors-elect should defray all expenses personally. With this understanding the following professors were elected in April: Dr. T. M. Campbell, Dr. H. R. Frost, Dr. T. G. Prioleau, Dr. James Ramsay, Dr. Edmund Ravenel, Dr. S. H. Dickson and Stephen Elliott, LL.D. Within a short time Dr. Campbell resigned because of the large expenditure which would be required as well as on account of the uncertainty of the venture which was ridiculed by not a few of his associates including the scholarly Dr. Samuel Wilson, and Dr. J. E. Holbrook was elected in his stead.

All preparations were completed by the fall and the opening exercises of the college were held on November 8, 1824. The following account of this notable occasion appeared in the Charleston Mercury and Morning Advertiser, November 17:

"The Medical College of South Carolina"

"This institution was opened on Monday the 8th instant at the new building erected for the purpose, at the west end of Queen Street in Charleston; the ground having been given by the City Council, and the other expenses having been borne by the professors. These professors were nominated and elected by the Medical Society of South Carolina, by whom the different branches were specified and assigned, forming the whole routine usual in Medical Schools.

The week was taken up by the professors delivering introductory lectures within respective branches, each exercise occupying a morning. The order in which the lectures were delivered is as follows:

On Monday, by Samuel Henry Dickson, M.D., Professor of the Institutes and Practice of Physic.

On Tuesday, by Henry R. Frost, M.D., Professor of Materia Medica.

On Wednesday, by Thomas G. Prioleau, M.D., Professor of Obstetrics and the Diseases of Women and Infants.

On Thursday, by James Ramsay, M.D., Professor of Surgery.

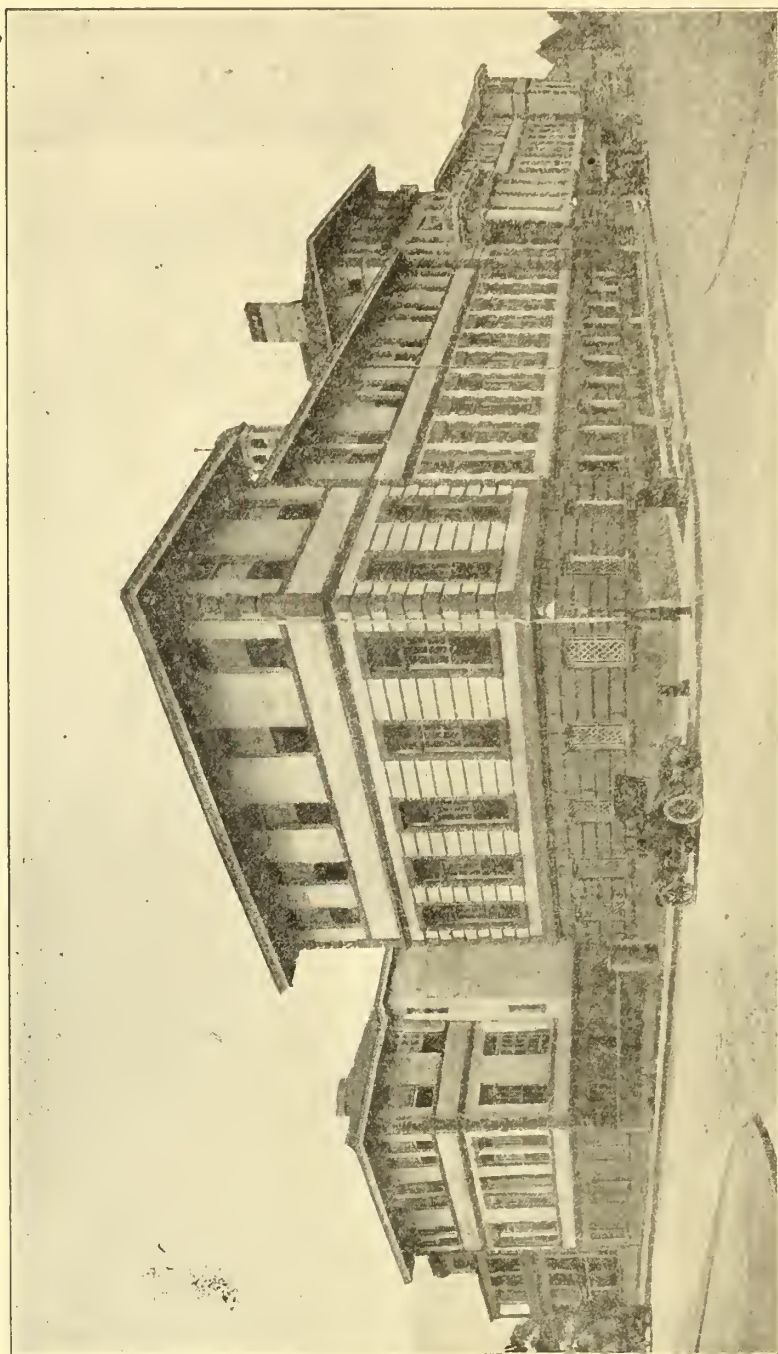
On Friday, by John Edward Holbrook, Professor of Anatomy.

On Saturday, by Edmund Ravenel, M.D., Professor of Chemistry and Pharmacy.

These introductory lectures were public and were attended not only by students who have been matriculated in this institution, but by a large number of literary and scientific gentlemen who crowded the lecture rooms with mixed feelings of pride and solicitude at the opening of this domestic institution under the auspices of the talent of Carolina indulging the hopeful prospect that our state will no longer remain in an entire state of pupillage to the learning and institutions of other countries, the College at Columbia having ripened into full competency to afford the students a collegiate course equal to any similar establishment in the United States. If this Medical College meet with the success that its commencement promises, our youth may reap the full advantages of a finished education at home, and the numerous evils and inconveniences of their being sent abroad avoided in the future.

Every professor, in delivering his introductory lecture acquitted himself to the entire satisfaction of the enlightened audience that attended; and they could not avoid exchanging mutual congratulations in the flattering prospects, afforded by these specimens of talents in the professors, that the city of Charleston will rise and take a respectable standing amongst those cities of our sister states where similar institutions have been established.

Much credit is due to these gentlemen by whose zeal and perseverance this Medical College, without any endowment, has been reared in Charleston, and to the honorable City Council who have accommodated it with a site. The branches of science, to



The Roper Hospital, One of the Teaching Units of the Medical College Located Across the Street From the College.

which it is devoted, are of the utmost importance to the public.

The professors are to deliver lectures in rotation on the specified days, so that lectures will be delivered on every day of each week during the season. The lectures on natural history and botany by Stephen Elliott, L.L.D., Professor of that department will commence in January next.

Upwards of thirty young gentlemen of our own state and Georgia now compose the pupils and rarely has a similar institution been opened under better prospects.

It is very manifest that the public sentiment both in town and country is running strongly in favor of a southern education. It is hoped that ere long our youth, the rising hope of the country, will not be obliged to go abroad for any branch of education—an expense which many can ill sustain; which to many would amount to an entire prohibition; and which in all cases carries abroad large funds to reward the talents and sustain the institutions of other countries, while those of our own are left with feeble encouragement or support. There is a peculiar propriety in obtaining a medical education in the climate where the physician is to act; where diseases, incident to the human body are apt to assume peculiar forms and modifications from the climate and seasons, and which in consequence must require a peculiarity of treatment which theory may not always suggest, but which like many other sciences is to be learnt by practice and experience. A domestic education will not only save our youth from long and distressing separations from their parents and friends, and the danger of contracting habits and sentiments abroad that may not be congenial to their own country but from the hazard of having their constitutions estranged from the climate in which they were born and are to reside. These and many other advantages strongly unite in recommending this institution for the Medical Branch.

If without any fostering aid from the public purse it has begun with omens so fair and promising, what might not be expected if the legislature of the state should (as in other places is liberally done) take the institution by the hand and place it at once on a firm foundation. It would well comport with the liberal and enlightened policy of the state of late years in extending the benefits of education, and contribute to raise the reputation of our country and advance some of the best interests of the people."

SOUTH-EASTERN BRANCH SOCIETY OF THE AMERICAN UROLOGICAL ASSOCIATION

Elsewhere we publish a communication in regard to the coming meeting in Atlanta, December 7, 8 of a branch of the American Urological Association. The States included are North and South Carolina, Georgia, Ala-

bama, Florida and Tennessee. It would appear that not only all of the urologists in our State should be keenly interested in this matter but many other physicians and surgeons as well. Urology has been one of the spectacular specialties in its development in recent years, and the South has had much to do with its progress. Our leaders are known in many parts of the world.

INVITATION FROM THE DEAN

The initiation next month of an annual celebration to commemorate the opening of the Medical College of South Carolina and to honor the men who had the vision and the courage to inaugurate so important an enterprise should elicit widespread interest. Elsewhere in this issue an account of the significance of this event and the program arranged for its celebration will be found. The Trustees and Faculty of the Medical College extend a cordial invitation to all members of the medical profession in the state, to friends and alumni of the college wherever they may be, to join in making this first celebration a notable gathering and to give the first Founders' Day Lecturer a generous and warm reception.

ROBERT WILSON, *Dean.*

BRIEF SKETCHES OF MEDICAL COLLEGE FOUNDERS

The original Faculty of 1824 at the Medical College was composed of men prominent in their respective fields.

John Edwards Holbrook, Professor of Anatomy, was a graduate of Brown University and the University of Pennsylvania, and had spent some years abroad, where he was associated with and inspired by such men as Cuvier and Dumeril. He was a successful practitioner, as well as a gifted and vivid lecturer, and for thirty years he was connected with the College. He was a member of many learned societies in this and other countries. His real life work centered about his monograph on the reptiles of this country, and his books on herpetology and ichthyology keep his scientific attainments still before us.

Samuel Henry Dickson, Professor of the Institutes and Practice of Physic was a graduate

of Yale and the University of Pennsylvania. He taught in Charleston for some twenty-three years, and later was professor at the University of the City of New York and finally at Jefferson Medical College. He was the author of many articles, especially upon yellow fever and dengue, and wrote three books upon the practice of medicine.

Henry Rutledge Frost graduated from the University of Pennsylvania and occupied for many years the chair of Materia Medica in the newly organized college. He later became Dean, and was the author of a book on the subject which he taught.

Edmund Ravenel, Professor of Chemistry and Pharmacy, likewise was a graduate of the University of Pennsylvania, and taught for ten years in the Medical College. He wrote much on conchology, and part of his extensive and valuable collection is still preserved in the Charleston Museum.

Thomas Grimbail Prioleau was another Pennsylvania graduate, and became Professor of Obstetrics and the Diseases of Women and Children in the new school. He was also President of the Medical Society. He taught for 43 years.

James Ramsay, son of Dr. David Ramsay, occupied the chair of surgery, and was an accomplished surgeon.

Stephen Elliott, Professor of Botany, finished at Yale with highest honors; he was not a graduate in medicine, but devoted his time to natural science, and to botany in particular, and published the "Sketches of the Botany of South Carolina and Georgia." He was likewise editor of the "Southern Review," and contributed many articles to that journal.

CORRECTION. CONTRACT PRACTICE

The following definition of Contract Practice as adopted by the Judicial Council in the amendment to the Principles of Ethics at the Cleveland meeting of the A. M. A. in June was unavoidably left out of the article by Dr. R. G. Leland on Medical Economics which appeared in the September Journal.

The definition is as follows:

"By the term 'contract practice' as applied to medicine is meant the carrying out of an agreement between a physician or a group of physicians, as principals or agents, and a corporation, organization or individual, to furnish partial or full medical services to a group or class of individuals for a definite sum or a fixed rate per capita.

"Contract practice per se is not unethical. However, certain features or conditions if present make a contract unethical, among which are: 1. When there is solicitation of patients, directly or indirectly. 2. When there is underbidding to secure the contract. 3. When the compensation is inadequate to assure good medical service. 4. When there is interference with reasonable competition in a community. 5. When free choice of a physician is prevented. 6. When the conditions of employment make it impossible to render adequate service to the patients. 7. When the contract because of any of its provisions or practical results is contrary to sound public policy.

"Each contract should be considered on its own merits and in the light of surrounding conditions. Judgment should not be obscured by immediate, temporary or local results. The decision as to its ethical or unethical nature must be based on the ultimate effect for good or ill on the people as a whole."

ORIGINAL ARTICLES

Fracture of the Hip Joint (Intracapsular)

A NEW METHOD OF SKELETAL FIXATION

By Austin T. Moore, Columbia, S. C.

(Preliminary Report)

From time to time various dictums in medicine have been proven to be incorrect. The old adage "In fractures of the hip in the aged—treat the patient and disregard the fracture" is not good advice. The best way to treat the patient is to treat the fracture. It used to be considered lifesaving to 'leave the patient alone.' These feeble old people were put to bed with sand bags along the injured extremity, or a Buck's extension was attached to the limb. If they were lucky enough to survive the first few days, they were forced to sit up in bed or in a wheelchair "to prevent pneumonia." They suffered pain day and night so that a reasonable amount of rest was impossible. Many of them had deficient bowel and bladder control, or dreaded the use of a bedpan so much they voided or evacuated their bowels in the bed. The result was that in addition to the pain, large pressure sores developed; especially over the sacrum. Who among us has not visited hospital wards and seen these pathetic old cases slowly expiring from sepsis and exhaustion. It is the writer's opinion, with that of many others, that the above mentioned advice instead of being lifesaving was the very thing that hastened the exodus of these old people. Even if the patient lived, the results in the true transcervical, subcapital, intracapsular fracture with displacement were 100 per cent poor. Non-union, fibrous union or absorption of the head and neck developed with the resulting deformity and permanent disability. In an effort to combat these lamentably poor results, various methods have been introduced by open and closed operations. The main object behind

each method being to accurately reduce the fracture to prevent pain and retain the reduction, plan the apparatus so that the patient might be moved about freely to keep up her well being and prevent hypostatic pneumonia from developing.

All of us are familiar with the cast treatment of Whitman and Cotton's method of artificial impaction. Roger Anderson's well-leg splint has many advantages and is very comfortable. These measures with various modifications (and especially with the advent of lateral X-ray views) have greatly improved the treatment of hip fractures.

Some men, not satisfied with the results of closed reduction, have advocated open operation. These operations vary from simply drilling the femoral neck according to Boszan's technic to massive hip joint exposure with reposition and fixation by various types of bone pegs, steel screws, nails, etc. Some men even advise immediate removal of the femoral head and reconstruction of the hip joint. Wescott has worked out a very nice technic for hip fixation which requires only a small incision. A Smith-Petersen nail is inserted through the femoral neck and secures the head in position.

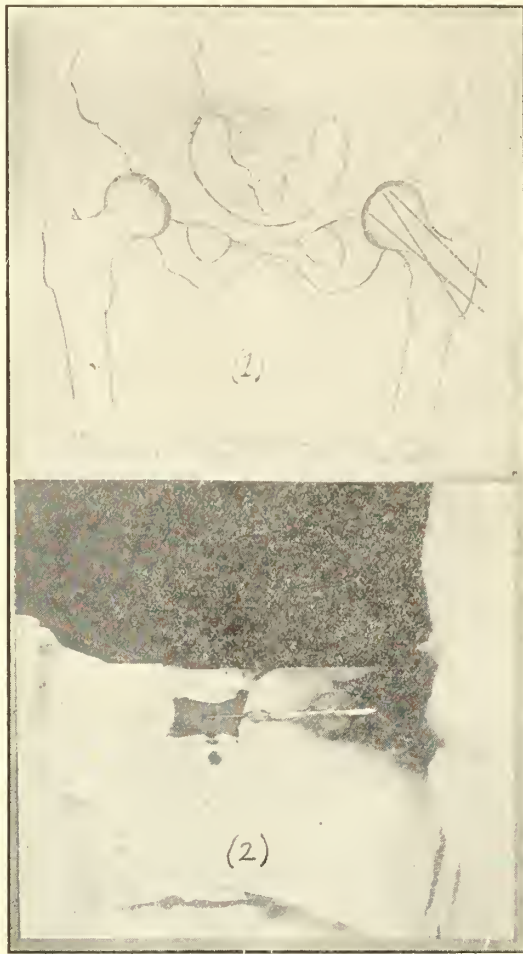
The multiplicity of these procedures bears witness to the fact that a universally satisfactory method has not yet been evolved. The latest text book of fractures (Key and Cornwell's 1934 edition) states that 10 to 20 per cent of patients with fracture of the hip die even when properly treated, and of those who do not die only 40 to 60 per cent secure good bony union. This appalling situation makes a fracture of the hip joint a very serious injury even under the best of circumstances.

Brilliant results may be accomplished at times by the more conservative closed methods but there are these undeniable disadvantages:

A. Some type of anaesthesia is necessary.

B. A certain number will die.

C. A certain number will have permanent disability.



Photograph No. 1: Drawing which indicates position of pins in place and extra drill holes for increased blood supply. No. 2: Method of drilling pins in position. Small T shaped handle may be used instead of the drill.

D. A certain number will be miserable and uncomfortable in the immobilizing cast or piece of apparatus.

E. Pressure sores may develop.

F. Prolonged immobilization predisposes to atrophy of soft tissue and bone with possibly—

- a. Absorption of the fractured head and neck.
- b. Non-union or fibrous union.
- c. Varying degrees of ankylosis in all joints of the extremity with resultant disability.

G. Full weight bearing cannot be allowed for at least six months—probably more. The period of disability even in the most favorable cases will average about nine months.

H. Prolonged hospitalization, numerous X-ray examinations, etc., plus charges of phy-

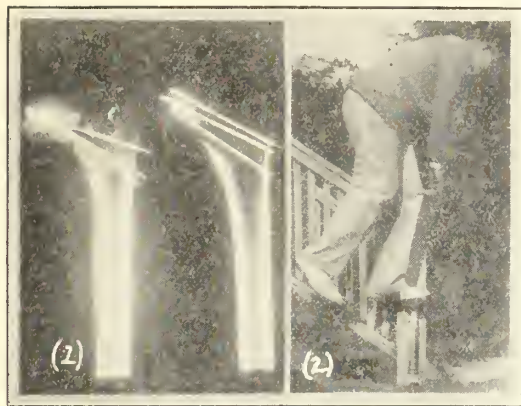
sicians and special nurses make the treatment very expensive.

All of the above disadvantages do not accompany open reduction, but its main objection is the risk of operation in these old patients. Cases have to be carefully selected. Even with a technic that requires a minimum amount of trauma and an operator with maximum skill and experience these operations must certainly be considered gravely and looked on as very serious procedures.

Having all of the above facts in mind the following technic has been worked out in an effort to improve results. The treatment applies only to the transcervical, intracapsular type of hip fracture. This fracture is the one which is so serious and the one which gives us so much trouble. The intertrochanteric fractures always unite, and it is simply a matter of holding them in good position.

Technic

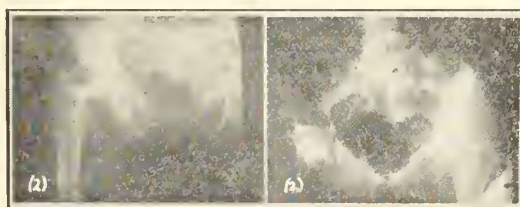
Operation is done as soon as possible after injury—usually the morning following hospital admission. A small preliminary dose of morphine is given. The patient is taken to the X-ray or Fluoroscopic room. A completely set up operating room is not necessary, for only a small sterile tray is used. After local preparation 20 to 40 cc of 2 per cent novocaine is injected directly into the hip joint. We are very particular about this part of the technic. The Pitkin type of blunt pointed spinal needle of small calibre is used. The needle is inserted at a point about two thirds the distance from the anterior superior spine to the top of the great trochanter. The direction is approximately toward the coccyx. Should the joint be not directly entered, the side of the pelvis should be located with the point of the needle. The needle can now be withdrawn and reinserted at intervals, moving the point downward until the shelving margin of the acetabulum is crossed and the point penetrates the capsule and is in the joint. Determine this accurately by using suction on the syringe. Always there has been bleeding inside of the joint and a certain amount of old blood can be withdrawn. 2 per cent novocaine solution is now injected. Our criterion has been an amount which will completely fill the joint. Increased pressure within the joint will force the plunger



Photograph No. 1: X-rays of femur which has been artificially fractured and pins inserted. This film was made following the test in picture No. 2 which shows a 190 lb. man supported by this femur without misplacement of the head and without bending the pins.

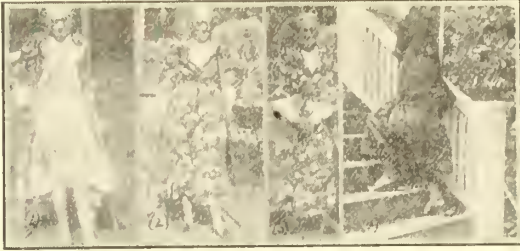
of the syringe back up into the cylinder. We have been very careful to obtain this phenomena and have not considered the injection as properly placed unless it was observed. The needle is now withdrawn and a few cc's are infiltrated into the skin and subcutaneous tissue below the great trochanter, where a small incision is to be made. After a few minutes the hip is absolutely anaesthetized. There is complete muscular relaxation, and reduction of the fracture can be accomplished by any method the operator prefers. The Leadbetter "heel-palm" test seems to be helpful but not infallible. We circumduct the hip a number of times and usually we feel that we can accurately determine when the hip has been perfectly reduced. While the surgeon changes his gown and gloves, the limb is held by an assistant and the region of the hip is prepared and draped for operation. A small incision (2 to 3 in.) is made just below the great trochanter, exposing the lateral surface of the upper end of the femur. Through this wound the outline of the femoral neck can be palpated fairly well with the finger tips or with the point of a curved Kelly hemostat. Three drill-pointed stainless steel pins (3-32 in.) are passed through the neck up into the head. This pin (about the size of an ordinary match stick) was decided upon after a number of trials. It is semi-rigid. Smaller pins or wire will bend too easily. Larger size ones increase trauma and cannot be cut readily. A sterile file and pair of pliers is kept handy dur-

ing the operation to cut the pins as needed. The pins are inserted at varying angles, which fastens the head securely in position. This procedure at first may seem to be difficult—but it is not. One may figure out the angle and length of the femoral neck by the Westcott technic. A small measuring rod is strapped to the side of the thigh when X-rays are made. The hip is viewed from many angles. All of this is time consuming, expensive, and not absolutely necessary. If one remembers the anterior torsion of the neck of the femur and has studied the other hip well in the original stereoscopic views, he realizes that now with the lower extremity in internal rotation the neck of the femur is practically in the horizontal plane. If he remembers the 135 degree angle of the femoral neck; if he remembers that the anterior surface of the neck is practically flat and continuous in the same plane with the anterior border of the femur; and if he remembers that the posterior surface of the neck is in a plane with about the middle of the femur, he will have no trouble. The average length of the drills is about 3 1-2 inches. An accurate measurement for length is not necessary as with the Smith-Petersen nail. Protruding ends of the drills must be left so that subsequent removal is easy. These protruding ends can vary from 1-4 to 3-4 in. or more. The drills can be easily and quickly cut if they are too long. There is no danger of drilling through the head and acetabulum because one always stops short of the full length of the pin. After X-ray the pin is easily pushed on in the desired distance. If the direction is wrong and the drill comes out through the side of the neck, it is felt very



Photograph No. 1: A typical case of transcervical fracture before reduction.

Photograph No. 2: Case No. 5 showing old transcervical fracture which occurred twenty-five years previously. There has been marked absorption of the head and neck with upward displacement of the femur and a great deal of shortening. The left femur was impacted and a questionable fracture existed. When the hip joint was injected for anaesthesia, old blood was withdrawn and bony crepitus could be felt on manipulation.



Photographs of Mrs. F., Case No. 2.
No. 1 taken two days after fixation.
No. 2 taken after one week.
No. 3 taken at the end of two weeks.
No. 4 shows patient able to go up and down stairs two months after operation.

easily. With experience one can insert these pins and be quite accurate.

The position of the reduction and of the pins is now checked by X-ray or Fluoroscope. They can be reinserted, driven in further or slightly withdrawn as indicated. We do not X-ray immediately after reduction and before the pins are inserted, but X-ray or use the Fluoroscope after insertion of the pins because:

- a. With the pins in place we have an accurate guide to reinsert them if necessary.
- b. Extra holes have to be bored anyway.
- c. It adds to the patient's expense.

When we are finally satisfied that the pins are in perfect position we make sure that Boszan's idea of obtaining better blood supply for the head has been carried out. We are careful that six drill holes are made through the neck and up into the head in addition to the holes in which the pins remain inserted. We believe that capillary loops will travel up through these canals and that blood supply to the head will be better. A small piece of wood is now placed on the outer side of the femur and a light blow with the mallet insures us that the fragments are driven well together. The wound is closed with two or three interrupted sutures. The patient can immediately move the hip freely in all directions and this is encouraged to give her confidence in the strength of the fixation. We have put these pins in several femurs which were artificially fractured. The head could not be pulled off without great force, and over 100 pounds of weight could easily be carried on the femoral neck. For these reasons we do not put on casts or other external fixation dressings. The patient is put back to bed and

told to turn, twist or do anything that she pleases so long as she stays in bed. The operation is almost free of shock. There has been nothing to cause shock if a gentle reduction has been done. The next day the patient may be up with assistance or using crutches. In a few days she may be dismissed from the hospital.

Post Operative Treatment

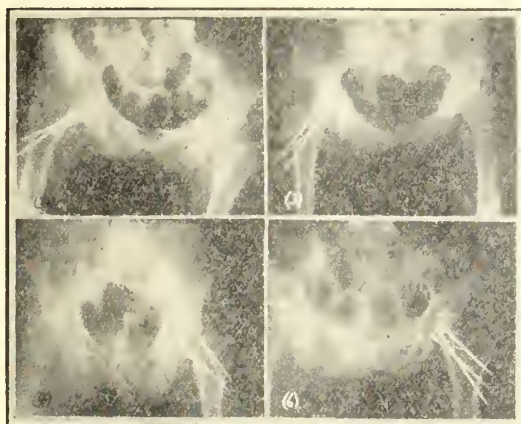
Sufficient experience has not yet been gained, and definite rules cannot be formulated. These patients seem to be able to take a good deal of weight on the injured hip in a short time after the accident. But we have not felt that this should be allowed. Following fracture it would seem that at least for a time there is sure to be some atrophy and absorption of the femoral neck. If full weight bearing is allowed, the head might be crushed. It is for this reason that weight bearing is restricted and not because we are afraid of the mechanical fixation. Weight bearing can be continuously increased according to the X-ray appearance,* but we are of the opinion that it is safest to insist that the patient use her crutches for about six months.

Summary

Intracapsular fractures of the femoral neck occur almost entirely in elderly females. These fractures are very serious injuries, and the results of present day treatment are far from



Photographs of Cases No. 2 and No. 3 one month after operation.



Cases No. 2, 3, 4 and 6 immediately after operation showing reduction and position of pins.

satisfactory. It is believed that practically all of these patients can be gotten well with solid union and normally functioning hip joints with little deformity. Poor results are due to improper treatment and not to physiological or mechanical reasons which are present. Good results may be expected with perfect reduction, perfect fixation, and early return to normal activity. An operation is described which requires only local anaesthesia and which reduces shock and trauma to a minimum. The operation is easy. It can be done anywhere. No especial equipment is necessary. A stretcher usually serves as operating table. Accurate reduction can be held permanently. Fixation of fragments relieves pain; so following operation the patient is practically painfree. Full range of motion, heat, massage, etc., can be begun at once in all joints. There is nothing to produce resultant joint stiffness anywhere. Active exercise stimulates circulation and hastens bone repair. The patient need be hospitalized only a few days. Check-up X-rays at the office guide the surgeon when to allow full weight bearing and when to remove the pins. The expense to the patient is greatly reduced, thereby allowing a margin for a reasonable surgeon's fee.

Our last patient was a man 84 years of age. He fractured his hip one afternoon and was taken to the hospital following examination and X-rays at my office. The hip was fixed with pins the following morning. He slept well that night. Wanted to go home the next day,

and was accordingly dismissed from the hospital. He was only in the hospital 48 hours at an expense of slightly less than thirty dollars. This case of course is unusual, but it shows what can be done.

We have had only six of these cases, the oldest one of which has only been done four months ago. This old lady would not use both of her crutches longer than three months. She said she did not need them. We compromised and she still uses one crutch most of the time. She has normal motion, no pain, goes up and down stairs and gets about in every-way practically as well as she did before her hip was fractured. X-rays show good position and union.

Our results so far have been so encouraging that we felt that this preliminary report should be made in the hope that others will look with enough favor on the method to try it. Naturally our technic has improved with each case. As experience is gained, no doubt it will be further altered. It is hoped that with a large number of cases possibly a procedure can be worked out that will be really worthwhile.

Case Reports

Case No. 1: Mr. W. G., Admitted Columbia Hospital 3-3-34, White, Male, Age 85. This feeble old man had fallen down steps and fractured his left femur through the neck. He had been treated with skin traction for two weeks. There was a large pressure sore over the sacrum, and his remaining strength was rapidly fading. He complained bitterly of pain. Pin fixation was decided upon in an effort to relieve his pain, and with the hope of saving his life. He stood the operation excellently, was relieved of pain, and the freedom of movement in bed made him much more comfortable. However, his condition was so poor that he steadily failed and died five weeks after operation from general weakness and terminal pneumonia. This was our first case and he was fixed so late after his injury that we had practically no hopes, but the results of the operation itself were very encouraging, and we felt that the method would prove to be of value.

Case No. 2: Mrs. W. A. F., Admitted Baptist Hospital 3-9-34, White, Female, Age 68.



Photographs of Cases No. 3 and No. 4 show patient capable of raising her leg and standing on the floor unaided the day following operation.

Slipped and fell on floor fracturing her femur. Had been treated for eight days with Buck's extension. Her condition was very poor, and she was so weakened from pain that the family had been told that she had not a chance to survive. When this patient was seen, the outlook appeared hopeless. The hip was reduced with local anaesthesia and Roger Anderson's well-leg splint applied. She was immediately made comfortable and began to improve. One week afterwards two stainless steel pins were drilled in place with novocaine anaesthesia and the splint removed. The patient stood up and took a few steps with support the following day. She had no more pain. Improvement was progressive. Now, four months after the accident, she has a full range of joint motion, goes anywhere she pleases, walks up and down steps easily and has used only one crutch for the past month. She has been cautioned against too much weight bearing, but she frequently allows all of her weight on the fractured femur.

Case No. 3: Mrs. W. D. R., Admitted Columbia Hospital 3-29-34, White, Female, Age 76. Fell from stool while milking a cow and fractured her femur. Was treated for one week with sandbags by her family doctor in the country. She was rapidly failing; having had poor cardiac and renal function for a number of years. Following admission to the hospital, the hip was reduced with local anaesthesia and a Roger Anderson splint applied. After five

days the hip was fixed with pins under local anaesthesia and all external splinting removed. She was gotten out of bed the following day and stood on her feet. Within a week she was using crutches. Improvement was rapid and has increased steadily ever since. This patient was in such poor condition that she does not remember anything that happened the first week after the accident. Now, three months afterwards, she has full range of motion, no pain, union is solid and she gets about on crutches practically as well as before her accident.

Case No. 4: Mrs. T. J. S., Admitted Baptist Hospital 5-23-34, White, Female, Age 47. Fell, fractured her left hip, and was brought directly to the hospital. By this time we had worked out a fairly definite technic. We believed that three pins should be used instead of two and that no other type of splint was necessary. This patient was fixed the following morning. Novocaine was injected directly into her joint, and the fracture was easily reduced. Pins were inserted through a small incision into the great trochanter, and six other holes were drilled through the neck up into the head. Check-up X-rays showed perfect position. This patient had practically no pain following the operation. The next day she was able to get up and walk about her room with assistance. She was dismissed from the hospital in one week and has continued to get along well ever since.

Case No. 5: Mrs. J. L. A., Admitted Baptist Hospital June 18, 1934, White Female, Age 72. This old lady had fallen and fractured her hip the day before admission. She had senile mental changes and had been a patient in a mental institution a few years previously. Her general physical condition was extremely poor. It was feared that she could not stand even the slightest handling, and an attempt at fixation of the pins was made two days following her admission to the hospital. This case is included because of its rather unusual interest and not because it comes within a group of skeletal fixation cases. This patient's other hip had been fractured 25 years previously and she was very much handicapped by this injury. Our X-rays revealed that the old fracture had been an intracapsular one with absorption of the head and neck and a great deal of shortening.

There was a serious question as to whether or not the other hip was fractured. Clinical examination indicated an intracapsular fracture but a stereoscopic examination was questionable. The patient was able to actively flex her hip with the knee extended, giving evidence of a considerable degree of impaction. We could not decide positively whether the hip was fractured or not; so we injected the joint to be certain. When the needle entered the hip joint old blood was readily withdrawn. After injecting 20 cc's of novocaine the hip could be moved and crepitations were felt. There was no question that a transcervical fracture was present. These manipulations had been done with the greatest care possible and had not weakened this patient appreciably, but due to the fact that the family was very apprehensive we decided that it would not be wise to go ahead and insert the pins. We felt sure that the patient would not recover, and we did not want to run the risk of criticism of our method. The old lady was put back to bed and apparently did well for several days, but one week following she suddenly developed pneumonia which rapidly proved to be fatal. She died within twenty-four hours after the pneumonia developed. We have included this case to show how difficult it is at times to make a correct diagnosis in an impacted fracture. This feeble old lady wasn't expected to live but a short time even without her injury. The slightest accident was sufficient to lower her resistance and bring on a fatal termination.

Case No. 6: Mr. C. B. B., Admitted to Columbia Hospital July 1, 1934, White, Male, Age 84. A few hours before admission this patient had attempted to arise from a chair and had fallen to the floor, fracturing his right hip. He was brought directly to my office where X-rays revealed an intracapsular fracture with the usual misplacement of the fragments. The following morning this patient was operated on according to the technic outlined in the text of this paper. He was a very feeble old man and had been an invalid for several years. He stood the operation beautifully and slept the whole night following the operation. He stated that he did not lose more than a half hour's sleep. The following morning he could sit on the side of the bed and was able to move his hip about

fairly well and was not suffering from pain. He was anxious to be taken home. We allowed him to leave the hospital that afternoon, which was approximately forty-eight hours from the time of the accident. It has been only two weeks since this case was done, but the old man is continuing to get along well. He is able to get about some with help and is having practically no pain. This case has been our most spectacular one. It may be due to improved technic, but we are inclined to believe that it is an unusual case, and we are not expecting to be able to handle our future cases so rapidly and inexpensively. The total hospital cost of this patient was less than thirty dollars.

Note. Since submitting this article for publication we found that one of the pins worked forward into the pelvis of one of our patients. No ill effects were noted, but now we use pins that are threaded in their outer third. Small round nuts have been fashioned from stainless steel. These are screwed on the pins until they fit snugly up against the bone. The pins cannot possibly move forward and the nuts would tend to lessen materially any chance of their moving backward. At this date, October 11, 1934, all of the patients are continuing to get along well.

Indications For Surgery of the Thyroid Gland

By L. H. McCalla, M.D., Greenville, S. C.

In South Carolina goiter is not as much a problem as it is in other sections of the country, but it is a problem—and often a neglected one. Many physicians, when consulted by a patient with an enlarged thyroid pass the matter up by merely telling the patient not to bother the goiter until the goiter bothers him. Nevertheless, every enlarged thyroid gland is a potential source of danger, and should be investigated.

The first real progress in the study of thyroid function was made by Sir Astley Cooper in 1840. Later, the study of goiter was advanced by Kocher, Horsley, Wagner and others. In 1917 Marine and Kimball published the re-

Read before the South Carolina Medical Association, Charleston, S. C., May 2, 1934.—6pt

sults of their observations, which were obtained by conducting an experiment on four groups of school children in Akron, Ohio. In one group of 2190 children who were given small doses of iodine, only five developed goiter. In a second group of 2305 children who were not given doses of iodine, four hundred and ninety-five developed goiter. A third group of 1182 children who already had thyroid enlargement were subsequently given small doses of iodine. Of these 1182 who were given iodine, seven hundred and thirty-three decreased in size, while in a fourth group of 1048 children with thyroid enlargement who did not take iodine, only one hundred and forty-five decreased in size. From this study, Marine and Kimball concluded that lack of iodine is an immediate cause of endemic goiter, and that iodine is a complete prophylactic agent.

Plummer, working along similar lines, confirmed Marine's observations, but felt that iodine, after adolescence, can not be used without risk, because, by that time, the goiter is usually adenomatous and may be activated by iodine therapy.

The prevalence of goiter in certain sections can be explained to a great extent by the insufficient quantity of iodine in the water and food. Still, the question arises, why should we have any goiters where the iodine supply is adequate? According to Dr. Crile of Cleveland, there is probably in many instances some factor that influences the metabolism of iodine. Change in some other part of the endocrine system, as the ovaries, might explain the prevalence of goiter among women. Even though an ample amount of iodine is contained in the diet, certain food substance may interfere with the iodine metabolism. It is known that a considerable amount of iodine is secreted in the bile and reabsorbed in the intestinal tract. It is possible that indigestible food substances when taken in excess could unite with the iodine secreted in the bile and prevent absorption. Crile suggests cabbage as one food capable of doing this. In this manner an actual iodine starvation might result in the presence of sufficient iodine in the diet. It is highly probable that factors of this kind influence iodine metabolism.

Plummer's classification of goiters is: Simple Colloid, Toxic, Non-Toxic Adenoma, and Exophthalmic.

A non-toxic, symmetrically enlarged thyroid gland in childhood is most likely a simple colloid goiter, and the careful administration of iodine will cause the goiter to disappear. If the enlargement persists after adult life, nine chances out of ten the enlargement is an adenomatous growth, and the administration of iodine is dangerous, as there is a likelihood of converting a non-toxic adenoma into a toxic goiter. It is true that a purely colloid goiter may exist after adult life, but this is the exception rather than the rule.

Occasionally, mixed types occur—an adenoma superimposed on a simple colloid goiter. In these cases, when iodine is given, there will be some shrinkage in the size of the gland, as the colloid portion regresses to the normal state, and hope of complete disappearance of the growth is entertained by the patient. However, the enlargement will not entirely disappear, due to the adenomatous structure which is little if at all affected by iodine. In such instances, the possible good effect is outweighed by the possible bad effect of converting a non-toxic adenoma into a toxic one. For this reason the administration of iodine is not advisable in the mixed types.

After adult life, any nodular enlargement of the thyroid gland, without symptoms of toxicity, is classified as non-toxic adenoma. It has been shown by a large series of cases that from two to three per cent of all adenomas of the thyroid, which were removed, showed malignancy when examined microscopically. The onset of toxicity is sometimes so insidious as some adenomatous growths that toxicity gains much headway, with permanent damage to other organs, before being detected. The removal of a goiter of simple adenoma type is associated with so little risk that I do not hesitate to advise its removal.

Toxic Adenoma: In cases of adenomatous goiter of several years duration, where there is palpation and dyspnea, with increasing nervousness and no other symptoms can be elicited suggesting hyperthyroidism. The basal metabolism may or may not be raised. Cardiac findings alone are usually sufficient to warrant

the opinion that such damage is due to hyperthyroidism. It is the opinion of Crile that the cardiac condition is due to over work from a mildly recurrent hyperthyroidism. The absence of a history of rheumatism is an important aid in the diagnosis, although when a rheumatic carditis is associated with an adenomatous goiter, even though no hyperthyroidism is evident, the safest procedure, because of the danger of such a goiter to produce damage to an already damaged heart, if the operative risk is obviously not too great, is thyroidectomy.

Exophthalmic Goiter: Generally speaking, the symptoms of Toxic Adenomatous Goiter and Exophthalmic Goiter are the same. In Exophthalmic Goiter, however, as a rule, the symptoms of thyroid intoxication are more rapid in onset, and the degree of intoxication seems to be greater than in the toxic adenoma. Often it is difficult to distinguish between the two. In fact, the condition often co-exists in the same gland.

There are certain characteristics of hyperthyroidism that seem to need special emphasis. Weight loss, with increased appetite, is a very characteristic symptom of hyperthyroidism. Rapid loss of weight over a short period of time indicates an acute or an extremely toxic condition. Daily weight record is advisable. The nervousness displayed in these patients varies with the degree of toxicity. Anxiety and irritability are particularly noticeable. Patients become unstable emotionally, lose their tempers easily, and are often unco-operative, unless they are tactfully handled.

Rapid pulse rate is probably the best single clinical evidence of over activity of the thyroid gland. There are exceptions. Some patients with hyperthyroidisms have a slow pulse. The pulse rate taken when the patient is carrying on normal activities is the most valuable. After a few days rest in bed, it is not unusual to see a pulse rate drop forty or fifty beats. If the pulse rate is not taken until after a rest, the degree of thyroid intoxication may be easily underestimated. It is better to over estimate than to under estimate the degree of thyroid intoxication.

The eyes are another indicator. When exophthalmus is present in both eyes, the other symptoms are usually so marked that the diag-

nosis is clear. Care must be taken, however, not to mistake a family mark for a true exophthalmus. For instance, where all members of a family have naturally prominent eyes. The clinical test of exophthalmus is that there be an area of white sclera between the edge of conjunctive and the lid edge. Stare and increased winking are other symptoms of hyperthyroidism quite noticeable in many highly toxic cases. The winks per minute is often double the normal number. Lid puffiness, associated with other symptoms, is very suggestive of thyroid intoxication. Especially is this true when associated with puffiness of the upper lids, but one should constantly bear in mind that hyperthyroidism may prevail without any of the eye signs.

Basal metabolism estimates, of all the laboratory procedures, is no doubt the most valuable in estimating thyroid intoxication, but unless the machine is in constant use an error may readily occur. Leaks in the apparatus may pass undetected and lead to a false estimate. There is quite a tendency, especially in neurotic patients, not to properly adapt themselves to the test, being unco-operative and giving a falsely high reading. If clinical symptoms do not coincide with basal metabolism readings, it is well to repeat the test a number of times. The metabolism estimate is of most value in deciding the border line mildly toxic cases and in estimating the degree of intoxication in the more toxic ones in deciding the best time for operation.

The most important thing in thyroid surgery is to avoid operating on patients suggestive of hyperthyroidism, but not of actual thyroid origin. Neuro-circulatory asthenia is a disease of young people who complain of vague, indefinite symptoms and lack energy and optimism, characteristic of hyperthyroidism. These Neuro-circulatory asthenia patients are constantly exhausted, in direct contrast to the patient with hyperthyroidism, who is bold and ambitious but soon becomes fatigued. Other confusing conditions are those of Neuro-syphilis, Neuroses of the Menopause, Tuberculosis, and Encephalitis, but with the proper study can easily be differentiated. Paroxysmal tachycardia can also be ruled out by the history of having had previous attacks and the at-

tacks stopping suddenly. According to Crile, thyroidectomy does not influence cases of paroxysmal tachy-cardia.

The modern treatment of hyperthyroidism has largely been developed during the past thirty years. In the early part of this century about the only treatment carried out was that of painting the goiter with iodine from day to day until blistering ensued, permitting the patient to rest a few weeks, and then applying iodine again.

Dr. Charlie Mayo's early experiments in treating diseases of the thyroid and some of his later experiences indicate the progress that has been made in treating this disease. His first case was that of a man with a goiter about the size of one's head. This huge growth was causing such marked pressure on the trachea that he could hardly breathe. The standard method of iodine application was tried, but without success. Dr. Mayo then decided to try one of the newer proposed remedies which was meant to destroy the circulation by hypodermic injection of a solution of iron into the gland. After the injections were made edema was apparently induced and the difficulty in breathing was increased. It appeared that the man would die unless something was done. So the thyroid gland was split vertically with a cautery, the incision passing through the skin, the capsule, and into the gland. Dr. Mayo relates that there was a tremendous outflow of serum and blood. Immediately the patient's breathing became easier, and after twenty-four hours, when the wound was dressed, the tumor was found to be slucking itself out. With a little manipulation, a few sutures and packs, the operation was completed. That was Dr. Mayo's first thyroidectomy.

Up to 1908 he had performed only two hundred and fifty operations, but by 1917 he had performed six thousand, thus showing how rapidly thyroid surgery was developing.

The last thirty years have seen thyroid surgery develop to such a degree that surgery can be offered to a class of patients that a few years ago were undiagnosed and considered inoperable, and the mortality has been reduced from a most prohibitive degree to less than one per cent. This seems remarkable when one considers the fact that twenty years ago one

to two per cent. of these cases died during preoperative preparation.

Many factors have entered that have influenced this improvement in handling these cases. The surgical work on goiter was advanced by Kocher of Bern, as he called attention to injury of the the recurrent laryngeal nerve, which caused paralysis of the vocal cords and made various changes in the method of operation. He learned to discriminate among cases of different types. He discussed freely the troubles connected with surgery of the thyroid gland and the necessity for tracheotomy, and reported his cases of tetany which were caused by the removal of one or more para-thyroid glands.

Plummer's introduction of iodine in 1922 for the pre-operative preparation of these patients with hyperthyroidism has probably had as much or more to do with the satisfactory handling of these cases than any other one thing. It has been emphasized repeatedly that iodine is in no way curative in treating hyperthyroidism. Its use in these conditions, other than for pre-operative preparation, is considered pernicious.

Crile has taught for many years the importance of properly handling the psychic and emotional condition in these very nervous and emotionally unstable patients. All psychic shock must be carefully avoided in the beginning of treatment until the operation is completed and the patient finally dismissed as cured.

Judgment as to the time to operate, control of the patient's emotions, selective anesthesia, the administration of iodine preoperatively, are all important factors in handling these cases, and making surgery a safe procedure.

DISCUSSION

Dr. George R. Wilkinson, Greenville:

We are accustomed to the relief that is offered by surgery in cases of trauma, for the removal of benign and malignant growths, and the removal or drainage of sepsis. Goitre surgery presents a distinct departure from what we are accustomed to. This type of therapeutics is more physiological than mechanical.

Primarily, the surgeon must be acquainted not only with the operative technique but must also be able to make a diagnosis of a physiological difficulty. While a thyroid gland may be removed for cosmetic reasons or on account of its malignant character, in the main the gland is removed in order to alter an

activity which affects the whole organism. A comprehensive understanding of the physiology and physiological pathology of the endocrine system is an essential requirement.

The average surgeon is not likely to be willing to put forth the effort necessary. Nowhere in the field of surgery is the remark of Dr. H. M. T. Finney more fitting, namely: that a surgeon must be a good internist who operates.

To add to the surgeon's difficulties, it is expected of him that he have some practical knowledge and experience in handling individuals with a disturbance of the flow of emotions. The skilful management before, during and after the operation is a real accomplishment and requires not only application but considerable natural ability.

Dr. Roger Doughty, Columbia:

It seems to me this is an extremely important topic which Dr. McCalla has brought up, and he has treated it extremely well.

There are two schools of thought as regards the thyroid. One regards it as Dr. McCalla has outlined. The other school rests on the work of a good many men and has been finally brought to a head by Reinhoff, in Baltimore. It rests on the studies of several evolutionary phases of thyroid diseases. I feel that Reinhoff has the better argument at this stage of the game. This school brings up the matter of what an adenoma in the thyroid is (that is, the type of adenoma that we have been trained to think of as an adenomatous gland). Reinhoff says that the first stage of all hyperthyroidism is one of hyperplasia and hypertrophy; that upon the administration of iodine a regression occurs throughout the gland, but not smoothly; in a spotted way; that there will be left areas of hypertrophy and hyperplasia surrounded by or adjacent to areas of colloid formation, which is the resting phase of the gland. Now, on that idea, following the administration of iodine the thyroid is not brought to a normal state at all; you are left with a mild hyperthyroidism after the administration of iodine, and that is probably the reason why iodine is not curative. If you adopt Reinhoff's view, the simple goiters of childhood are in a little different position, but not essentially so. There the gland is able, not infrequently, to come back to a practically normal state and give no further trouble, upon the administration of small quantities of iodine. Reinhoff, in further studies, gave the ratio of true adenoma to toxic nodules. My impression is that he found only 5 per cent were true adenomas. The rest—the toxic nodular goiters—he felt were not adenomas but goiters that had had a hypertrophy and hyperplasia with a regression, either spontaneous or produced by iodine, that was spotty in character.

If that be true, then almost all thyroids should belong primarily to the surgeon. (I am not talking now about the goiters of childhood.) Because of these varied phases, that is, of having glands in which there are areas of hypoactivity and areas of hyper-

activity coexistent at the same time, you will have patients occasionally who present mixed evidences of hypo- and hyperthyroidism combined. You may have dry hair and skin with a facies that is distinctly apathetic, with normal or even greater than normal weight, a relatively slow pulse rate, or a rapid pulse rate with a small gland only a little firmer than normal, perhaps. Yet if you will study these patients carefully you will find they are really hyperthyroid; they usually have a raised basal rate and really are hyperthyroids, in spite of the fact that you would put them down as hypothyroids when you first see them. I have seen quite a number of those patients cured by removal of part of the thyroid gland. I know that these patients are usually classified as belonging to the neurocirculatory asthenic group. But they are two different conditions, and I believe you can differentiate them.

Don't depend too much upon your basal metabolism. It is sometimes misleading. You can have toxic nodular goiter with a relatively normal rate, but nevertheless it is damaging the heart considerably.

I do not believe with Urban Maes that goiter operations should never be done except in goiter centers, and I do not think many people do agree with him, regardless of the work in New Orleans.

Perhaps the work done in South Carolina is not quite as good as that done in goiter centers, but it is not far from that level.

The picking of the time for the operation, by the surgeon, is one of the major factors that controls results in this procedure.

Dr. W. H. Prioleau, Charleston:

I have in mind two or three points, one of which Dr. Doughty covered so well that I shall not repeat it.

The term "neurocirculatory asthenia" has been mentioned a great deal. It is sometimes difficult to differentiate this condition from thyroid disturbance. In fact, I think there are a number of cases that have both hyperthyroidism and neurocirculatory asthenia. These two conditions do occur at the same time, probably because patients with neurocirculatory asthenia are predisposed to hyperthyroidism, and vice versa. In these cases the results of thyroidectomy are not satisfactory, as the neurocirculatory asthenia is not relieved.

The title of the paper was "Indications for Thyroid Surgery," and it was complete as regards hyperthyroidism. But there is another field in which thyroid surgery is indicated. It is new; it is only in the experimental stage, but, at the same time, the results are sufficiently satisfactory so as to give us a hope. That is in the treatment of cardiac cripples, particularly in those cases who have congestive heart disease, especially of the anginoid type, and less so in those with hypertensive disease. This work has been done by two groups, more or less overlapping, in Boston. The work started because of the remark-

able results in one case of a cardiac cripple in whom thyroidectomy was done. Thyroidectomy has been done in a number of cases of cardiac cripples, on the basis of lessening the work the heart has to do. If you can give the patient a lowered basal metabolism, you decrease the amount of work upon the heart, and, as a result, the patient is better. In these anginoid cases the patients are, for some peculiar reason, relieved of pain. There is no adequate reason yet discovered for this.

In these anginoid cases you have to do a complete thyroidectomy. A few cases of troublesome hypothyroidism may result, but you can control that easily by giving thyroid extract. It is necessary to do a total thyroidectomy because any remaining tissue has a tendency to grow until it establishes a normal

thyroid balance, thus defeating the purpose by raising the basal metabolic rate.

Dr. McCalla, closing the discussion:

I certainly appreciate the discussion. Of course, thyroid surgery is a physiological proposition and I appreciate the doctors stressing that point.

I am glad Dr. Prioleau mentioned complete thyroidectomy in congestive heart disease. This is a comparatively new procedure, but good results have been reported. Personally I have not had any experience with this treatment, but I can see where the method has great possibilities. Dr. Pemberton of the Mayo Clinic reported a case in which complete thyroidectomy was done for the relief of diabetes mellitus, but the final results in that particular case were not entirely satisfactory.

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PEDIATRICS

R. M. POLLITZER, M.D., GREENVILLE, S. C.

Everyone nowadays talks very glibly about Prophylaxis. In general we all subscribe to the doctrine that an ounce of prevention is worth a pound of cure. Going further we talk much about the aim of modern medicine in attempting to prevent disease, rather than to wait until its onset; then strive to cure or at least lessen its ravages, but in actual practice very little preventive work is done. Why is this? There are at least two reasons. The average doctor is a rather busy man. His time is taken up largely with people who need his services and who can not or will not wait. Much of his work is of great interest to him. Whether a specialist or a general practitioner he has a certain line in which he tries to put most of his time, and from which he derives pleasure. Naturally other things, especially things that can be put off, and things which seem of no consequence, are shoved into the background, and soon his clientele learns to seek others for this service.

But this is only part of the story. The average person never does anything that he can possibly put off. Further, unless the expenditure of money will yield him pleasure or give him something in his hand, he keeps his money in his pocket. Of course many people have so little to expend that they necessarily are restricted to the day's necessities. And yet it is a pity that notwithstanding the generous gifts that medical science has bestowed on humanity, for one reason or another the full benefit is not reaped.

We all know how within our own time diphtheria has become a preventable disease. In all civilized lands the once dreaded putrid sore throat could be wiped out. In the pre-antitoxin days science had little to offer. Now the suffocative angina not only can be cured but abolished. Until recently the administration of two doses of a harmless toxoid insured immunity in about 90 per cent of cases within two months. Now still better, but one dose and that only 1-2 c. c. suffices. The immunity is established within six weeks and about 95 per

cent are made immune. The time to use this simple prophylactic method is at 6 months of life. Prior to that the infant has some natural immunity and only 15 per cent are susceptible. But by the time the first year is reached about 60 per cent are already liable to the disease. We as doctors should advise people not to wait until the school age but to be safe; for the disease is most deadly in the first few years of life, and then too it has the greatest incidence. The pain is trifling if a small sharp hypodermic needle is used. Very rarely is there any reaction, and when it is seen, nearly always it is in older children or adults. The cost is very small, and not one tenth of the expense of treating a case of diphtheria.

When one considers what the race has suffered from smallpox, it should not be necessary to even speak of vaccination. It has been in use now for over 150 years, and where cities or countries have kept it up for a generation or more variola has been exterminated. But security breeds indifference. The adage "In time of peace prepare for war," is seldom lived by. History records here and there, from the Philippines to Montreal to Denver, that whenever a case of smallpox is brought into the midst of an unvaccinated population, a tremendous outbreak occurs. After that all are vaccinated and once more the people are safe.

Contrary to popular opinion, smallpox does not spare children. All children should be vaccinated during the first year, unless they are sick, have some skin disease, or there is a distant contra-indication. Of course, infection of the wound is always possible either from contamination at the time of scarification or injection or more often by subsequent scratching by the child. Therefore unless one's hand is forced, it is best to vaccinate during cool weather, when there is less sweating and fewer skin infections. However, chiefly from some of the afore-mentioned reasons, most people have their children hastily vaccinated just a few days before the opening of school. It would be so

much better to have this done first during the first year of life and then again in four or six years at the proper season. The law requires that all children entering the public schools must have been vaccinated; but there is no law that prevents this from being done long before. Vaccination during the first year obviates the fear of the child, lessens the risk of infection from an ambulant uncontrolled person, and most probably lessens the risk of complications.

Vaccination is a rather simple valuable procedure which belongs to the medical profession. The recent practice of herding people and doing the same thing to all in the same way as in the industrial world as seen in mass production is all wrong. Health and life are so precious and so precarious that one should be willing to give time and money to insure its continuance. The proper function of city and county health department is to act as educators, epidemiologists, and sanitarians. That is their business; it is public health and not private health, nor the practice of medicine in any of its branches.

About two or three generations ago typhoid fever was a tremendous factor in the loss of life of children and adults. Few families managed to escape its ravages. Then sanitation was extremely poor, and no one knew how to protect by inoculation with typhoid vaccine. Today typhoid still takes its toll, but it no longer ranks with heart disease and cancer. In many communities it has almost been eliminated, and where milk and sewerage are adequate there is rarely a case. But even so epidemics do occur. Children and even at times infants fall victims to it.

Some physicians recommend giving babies during the first year, three doses of typhoid vaccine, because they have had some cases at that period of life. But if one looks at statistics, he will see that very few babies are affected. They merely come in contact with the disease; and if they are given boiled milk, as they should, the chief menace is ruled out. Of course, flies in most houses where there is any regard for sanitation are kept out by screens. However, in most instances, by the time the child is three he runs about visiting the neighbors or goes on trips with the family, eating outside the home. For that reason all children unless in bad health should during the winter before they are three years old be given typhoid vaccine in three doses at weekly intervals. There is unfortunately, as a rule, some systemic and local reaction. But the reaction is less in children, especially young children, than in adults. It has long been my custom to advise all mothers to have these three protective inoculations given to their children, and the majority pay heed. But from time to time I see a patient who has contracted diphtheria or typhoid after the mother has been educated in these prophylactic procedures. After that they are strong converts; but the horse is already out of the stable.

Human nature remains as is. People find it hard to learn and easy to forget. But withal there is a certain percentage who will listen to their doctor and who do as he says. These are due our protection. It is unquestionably the duty of the doctor to tell those under his care what preventive medicine has to offer and how fortunate the man of today is; in that he can escape so many acute infections so easily.

- - SOCIETY REPORTS - -

PROGRAM FOURTH DISTRICT MEDICAL ASSOCIATION, HELD AT UNION, S. S.,
SEPT. 27, 1934, 4 P. M.

Invocation—Rev. J. C. Roper, Pastor Grace Methodist Church.

Address of Welcome—Dr. A. P. McElroy, Pres. Union County Medical Society.

Response—Dr. George E. Thompson, Pres. Fourth District Medical Association.

Reading of Minutes

1. Treatment of Cutaneous Burns—Dr. F. P. Owings, Union, S. C.
 2. Immunization of Diphtheria, Dr. Hilla Sheriff, Spartanburg, S. C.
 3. Bronchoscopy in Diagnosis & Treatment—Dr. Rusking C. Anderson, Spartanburg, S. C.
 4. Diagnosis & Treatment of Amebic Liver Abscess. Slides—Dr. J. R. Young, Anderson, S. C.
 5. Bone Diseases—Slides, Dr. W. S. Judy, Greenville, S. C.
 6. Injection Treatment of Varicose Veins—Dr. J. H. Sanders, Gaffney, S. C.
 7. Heart Disease in General Practice—Dr. W. S. Fewell, Greenville, S. C.
 8. Pentobarbital Sodium—as Analgesic in Obstetrics—Dr. Jack D. Parker, Greenville, S. C.
 9. Obstetric Problems of General Practice, Dr. Clarence Edens, Greer, S. C.
 10. Address by Dr. Samuel E. Harmon, Pres. Elect S. C. Medical Association, Columbia, S. C.
- Dinner 7:30 P. M. Dutch.
Election of Officers.
Adjournment.

Dr. George Thompson, Pres.
Dr. R. M. Pollitzer, Secy.

COLUMBIA MEDICAL SOCIETY, COLUMBIA, S. C., CRYSTAL ROOM, COLUMBIA HOTEL,
SEPTEMBER 10, 1934, 8:30 P. M.

Program

1. Maternal Mortality—by Dr. C. C. Applewhite, U. S. Public Health Service.
2. Obstetrical Superstitions and Traditions—by Dr. Joseph Akerman, Professor of Obstetrics, University of Georgia.

E. L. Horger, M.D., President.
Benj. Rubinowitz, M.D., Secretary

COLUMBIA MEDICAL SOCIETY, COLUMBIA, S. C., FOREST LAKE CLUB, MONDAY, OCTOBER 8, 1934, 8:30 P. M.

Program

1. Malignancies of the Urinary Tract. Lantern Demonstrations. By Dr. Montague L. Boyd, Atlanta, Ga.

Reception Following.

E. L. Horger, M.D., President
Benj. Rubinowitz, M.D., Secretary.

OCONEE COUNTY MEDICAL SOCIETY

The Oconee County Medical Society met at Westminster, September 13, 3:30 P. M., Dr. S. H. Ross, President in the Chair. The reading of the minutes was dispensed with. The first paper was by Dr. Ross on the subject of Nephritis. This was a case report of a young boy seven or eight years old with general edema, four plus albumin, and convulsions. The newer idea of treatment was carried out, that is, forced fluids, magnesium sulphate by mouth and intravenously. For the control of vomiting, phenobarbital and sodium bromide were given per rectum. One twelfth grain of morphine was given hypodermically every four hours to overcome the extreme nervousness and procure rest, especially at night. This desperate case recovered but had a residual cross eye and some difficulty in locomotion for a short time. Other cases of nephritis were reported by various members of the society.

Following the scientific part of the program a general consideration was given to the workings of the Federal Emergency Relief for the indigent sick in Oconee County. It appeared that a number of adjustments were needed to provide a smoothly working proposition so far as the doctors were concerned.

The following members were present, Drs. Ross, Orr, Simpson, Mays, Hall, Strickland, Johns and Hines.

E. A. Hines, Secretary.

SEVENTH DISTRICT MEDICAL ASSOCIATION, SUMTER, S. C., THURSDAY,
SEPTEMBER 13, 1934

Program

Invocation—Rev. J. B. Walter, Rector Sumter Episcopal Church.

1. "Some Problems Facing Our State Association," by Dr. William Eggleston, Hartsville, S. C., President of the South Carolina Medical Association.

2. "Are We Drifting Toward State Medicine?," by Dr. Samuel E. Harmon, Columbia, S. C., President-elect of the South Carolina Medical Association.

3. "Compression of the Spinal Cord—Its Surgery," by Dr. Addison G. Brenizer, Charlotte, N. C. (Illustrated with lantern slides).

4. "Some Phases of Preventative Pediatrics," by Dr. D. Lesesne Smith, Spartanburg, S. C.

5. "Urinary Obstruction In Male Infants," by Dr. Robert W. McKay, Charlotte, N. C. (Illustrated with lantern slides).

6. "Hypertension," by Dr. Hal M. Davison, Atlanta, Ga.

7. Reports of Clinical Cases.

President, Dr. D. O. Winter, Sumter, S. C.

Secretary-Treasurer, Dr. Carl B. Epps, Sumter, S. C.

THIRD DISTRICT

The regular annual Third District Medical society, composed of physicians from Abbeville, McCormick, Greenwood, Laurens and Newberry counties met Thursday Oct. 4, with the local physicians as hosts. A bountiful turkey supper was served at the country club and a nicely arranged program was carried out. Dr. Thomas Pope, of Newberry, president of the association, thought it very fitting that Dr. James H. McIntosh, of Columbia, a former Newberry county member who had had a birthday the day before should preside.

Among those taking part in the program and helping to put the program over in a big way were: Dr. G. Heyward Gibbes, Columbia, "Angina Pectoris," an analysis and a review; Dr. LeGrand Guerry, Columbia, "Acute Abdomen"; Dr. F. N. Martin, Newberry, "Aplastic Anemia"; Dr. George Benet and Dr. C. N. Spivey, both of Columbia, "Stab Wounds of the Heart"; Dr. Samuel E. Harmon, Columbia, a former student of Newberry College and very popular with the Newberry doctors, made a talk. The welcome address was made by Dr. J. M. Kibler, Newberry, one of the oldest physicians in this part of the state.

The next meeting will be held in October, 1935, in Abbeville. Officers elected for the ensuing year include: Dr. J. R. Powell, Abbeville, president; Dr. R. M. Fuller, Greenwood, first vice president; Dr. W. A. Simpson, Greenwood, second vice president; Dr. F. L. Mabry, Abbeville, secretary and treasurer.

CORRESPONDENCE

Editor of the Journal,
Seneca, South Carolina.

Would it be possible for you to comment in an editorial in the Journal on the formation of the Southeastern Branch Society of the American Urological Association? Some of the other urologists of the state may have written you concerning this organization. We feel that it is an important society, being a part and parcel of the national organization with a membership of over a thousand.

In your comments would you stress the importance of this section procuring a branch society; the interest that it should hold, not only for the urologist, but to other practitioners also; that the first meeting will be in Atlanta Decembr 7-8th; that prominent urologists of the country will address the association; that Dr. Montague L. Boyd of Atlanta is the president.

James J. Ravenel.



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- - - BOOK REVIEWS - - -

MANUAL OF THE DISEASES OF THE EYE, FOR STUDENTS AND GENERAL PRACTITIONERS, by Charles H. May, M.D.

Director and Attending Surgeon, Eye Service, Bellevue Hospital, New York, 1916 to 1926; Consulting Ophthalmologist to the Mt. Sinai Hospital, to Bellevue Hospital, to the French Hospital, New York, and to the Monmouth Memorial Hospital; Formerly Chief of Clinic and Instructor in Ophthalmology, College of Physicians and Surgeons, Medical Department, Columbia University, New York.

Fourteenth Edition, Revised, with 376 original illustrations, including 25 plates, with 78 colored figures. Baltimore, Md., William Wood and Co.

A book to pass successfully through fourteen editions evidently has appealed to a large number of students and physicians. This revision has been extensive. The illustrations are most excellent. It is now a book of about five hundred pages having grown with the years. In fact, it would appear to be even beyond the manual stage by a good margin.

THAT HEART OF YOURS, by S. Calvin Smith, M.D., ScD., Author of "Heart Affections: Their Recognition and Treatment." "Heart Records: Their Interpretation and Preparation." "How is Your Heart?" (New York and London), Etc. Illustrated, Philadelphia, London, Montreal, J. B. Lippincott Company.

This is an excellent volume to put into the hands of the intelligent laity. There are ten chapters under the following headings:

- I. The Heart Is More Sinned Against Than Sinning.
- II. Structure and Function of the Heart.
- III. How Hearts Are Hurt in Childhood.
- IV. The Heart in Adolescence.
- V. The Heart in Middle Life.
- VI. Signs That May Indicate Beginning Heart Trouble.
- VII. The Use and Abuse of Heart Rest.
- VIII. General Suggestions for Heart Care.
- IX. Individual Instructions for Special Heart Conditions.
- X. The Psychology of Reconstruction.

PRACTICAL TALKS ON HEART DISEASE, by

George L. Carlisle, M.D., Associate Professor of Clinical Medicine, Baylor University, Dallas, Texas. Springfield, Illinois; Baltimore, Maryland, Charles C. Thomas.

In the first paragraph of the preface the author says: "After twenty years of work, I am convinced of two things: the first is that the most necessary man in the practice of medicine is the family doctor; and, second, that the smartest doctor in the world is the qualified general practitioner. I have no complaint against the qualified necessary specialist; we need him, but in my opinion we are greatly 'over-specialized.' Ninety per cent of all illness can be cared for properly by the qualified general practitioner."

The author maintains throughout his book that in the average practice a doctor can do good work without any of the refined instruments of precision in so far as heart disease is concerned. He stresses very carefully the importance of the history of the case. He finds of the simpler forms of physical diagnosis the use of percussion to be of comparatively little value in a study of the heart. He calls attention to the importance of blood pressure readings at various times. He also notes that one fourth of all blood pressure instruments are out of order. He minimizes the significance of heart murmurs as a general proposition. His treatment of the decompensated heart is simple and can be carried out in the average home. He depends most on morphine, rest in bed and this is to be absolute and six grains of digitalis daily for about a week. Both these remedies are to be gradually reduced as the patient improves.

In the cardiac neuroses of which there are a large number in every physician's practice the author gives no medicine at all as a rule but treats the patient so to speak very carefully over a long period of time and with seemingly good success. This is a book of a hundred and fifty three pages and is attractively bound and printed. It has an optimistic note about it most helpful to the general practitioner.

SURGERY

WM. H. PRIOLEAU, M.D., F.A.C.S., CHARLESTON, S. C.

"TEMPORARY PHRENIC NERVE PARALYSIS"

Unilateral paralysis of the diaphragm has been used widely of late years in the treatment of pulmonary tuberculosis. On the whole a great deal of benefit has been derived therefrom. In nearly all the cases this has been effected by a permanent paralysis of the phrenic nerve. A permanent paralysis has been produced partly through lack of realization that a temporary paralysis may be preferable and partly on account of technical difficulties in securing a complete temporary paralysis of sufficient duration.

In a recent article, Dr. John Alexander of Ann Arbor, Michigan points out that in routinely producing a permanent paralysis of the phrenic nerve, a certain amount of harm is done in a number of cases, and in general the benefits of phrenic nerve paralysis are not utilized to the utmost. (J. A. M. A. 102:1552 May 12, 1934). He reviews conditions in which a permanent paralysis would be prejudicial to the welfare of the patient. In the first place the results of phrenic nerve paralysis are unpredictable and for this reason it is obviously better not to make it irrevocable in every case. This is particularly evident in those patients for whom a localized thoracoplasty of the upper ribs should later be used for cavernous lesions that the phrenic operation has failed to control.

Should a phrenic paralysis effect a healing of

one side in bilateral disease and the other side later require need of collapse therapy, a permanent phrenic paralysis on the healed side will greatly handicap the treatment of the other side, on account of reducing unnecessarily the vital capacity.

Other instances of the harmful effect of permanent paralysis could be quoted. In brief the temporary paralysis should be used when there is reasonable doubt as to the result and especially when further unilateral or bilateral collapse therapy measures might become necessary which would reduce the vital capacity unduly if the phrenic paralysis is permanent.

The permanent paralysis is generally induced by exeresis of 10-12 cm of the phrenic nerve. This destroys accessory branches which are the cause of resumption of function so often when only a few centimetres of the nerve has been excised. The temporary paralysis is affected by crushing the main phrenic trunk in one place, and resecting 2 cm of the one or more accessory branches. These come off from the mesial or anterior surface of the fifth cervical trunk just above the clavicle. These are resected instead of crushed as they are not essential to a satisfactory functioning of the diaphragm and to locate them at a second operation would be difficult. Should it be decided later that a permanent paralysis is indicated all that is necessary is to resect a few centimetres of the main phrenic trunk.

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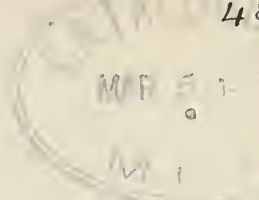
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Loose Stools in Infants

require extra diapering, and inconvenience the mother

Clinically, loose stools are accompanied by a dehydration which, when excessive of long continued, interferes with the baby's normal gain. A long-continued depletion of water is serious, since "the fluid requirements of an infant are tremendous. A normal infant 15 pounds in weight will frequently excrete as much as one litre of urine per day. A negative water balance for more than a very short period is incompatible with life." (Brown and Tisdall)

Moreover, when the condition is superimposed by chance infection, the delicate balance may be seriously upset, since the infant's reserves have already been drawn upon, so that resistance to infection and dangerous forms of diarrhea may be too low for safety. Every physician dreads diarrhea, which Holt and McIntosh call "the commonest ailment of infants in the summer months."

If you have a large incidence of loose stools
in your pediatric practice —

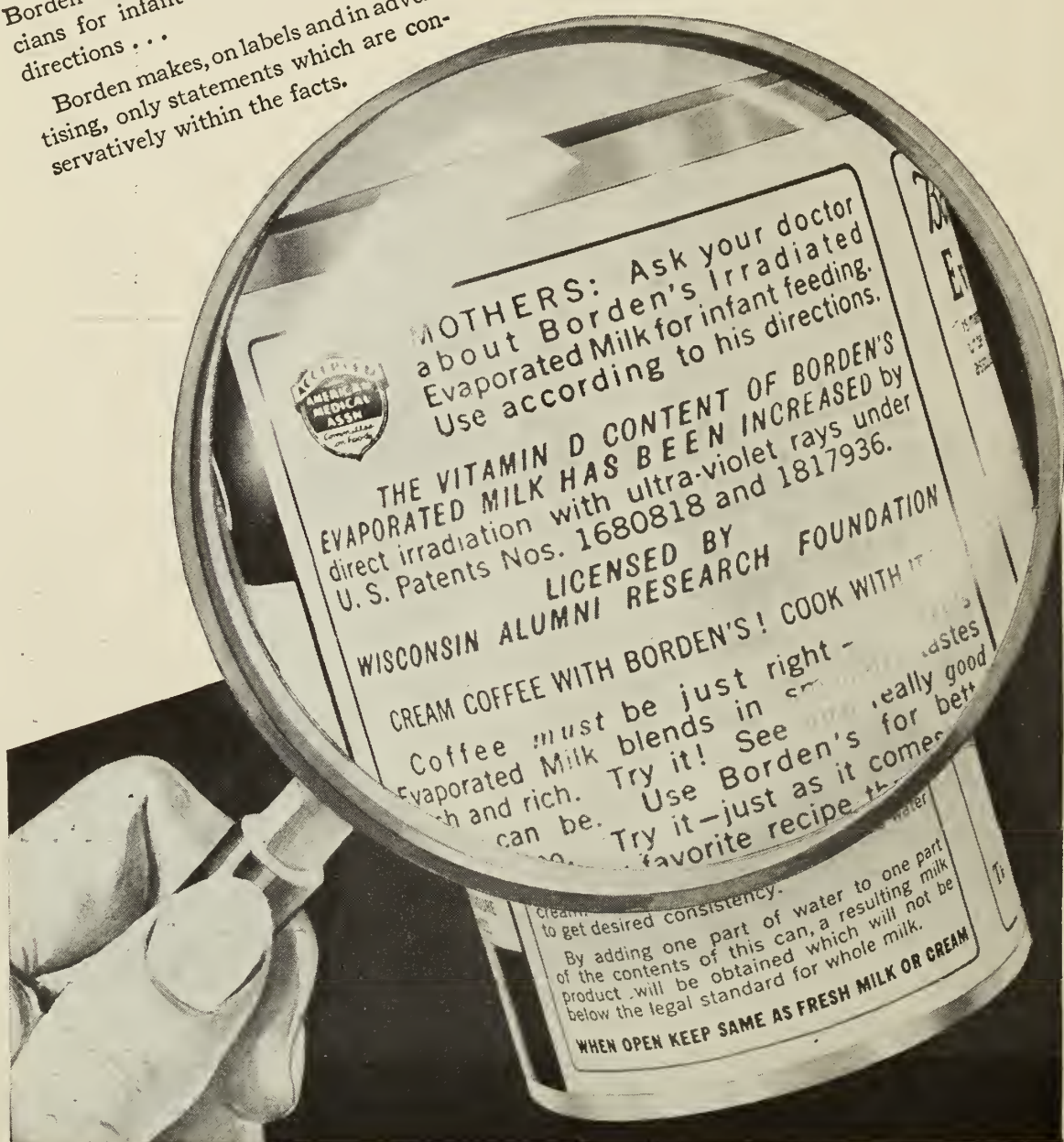
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EDITORIAL

FOUNDERS DAY A SUCCESS

The inauguration of Founders Day at the Medical College in Charleston, November 8 celebrating the 110th anniversary of the opening of the College was highly successful. The attendance was very good indeed both at the clinics and at the banquet. The orator of the occasion was Dr. Stewart Roberts, Professor of Medicine at Emory University, Atlanta, whose ancestors came from South Carolina. Dr. Roberts spoke on the subject of Neuro-Circulatory-Asthenia. Dr. Roberts is nationally known for his contributions along this line and is widely sought as a speaker throughout the country. Dr. Robert Wilson, Dean of the College acted as Toastmaster at the banquet. A number of distinguished speakers representing various colleges in the city and elsewhere in the State were on the program as well as official representatives of the city of Charleston. It is intended to repeat these exercises annually. It may be feasible to enlarge upon it and carry the clinics

longer than one day though this is merely a suggestion.

IS THERE A NEW DEAL ON THE WAY IN MEDICINE

In recent years medical economics has come in for perhaps more than its share of the lime light in many medical societies. This of course was to be expected along with many other enthusiastic discussions in these changing times. At the Conference of State Secretaries held in Chicago the latter part of September a rather full consideration was given to the relative merits of loading up our society programs with papers on medical economics to the detriment of the scientific aspects. Undoubtedly medical economics should have a place rather frequently but it should not take the leading place. It is true that we ignored medical economics too long and we are now face to face with its serious problems and must meet them squarely and conscientiously as they arise. The Secre-

taries Conference considered many phases of the new deal as it concerns the practice of medicine in this country. Since the Conference the national election has come and gone and it is an urgent matter that the medical profession in this country be prepared to take a stand for its rights. There seems to be little doubt that certain changes affecting the practice of medicine is in the offing. It would appear to be reasonable that after thousands of years of experience there is no need for radical changes in the fundamental principles we have evolved in the practical ways and means of the treatment of the sick. That there may be some modifications necessary for the well being of the patient and a more satisfactory relationship of the physician thereto, but these modifications should be guided by the profession itself and now is the time to do something about it. We are not ignorant of potential forces outside of medicine working for these adjustments. If we do not assume the leadership in all these matters it will not be due to our lack of knowledge about them.

We have a profound conviction that the American Medical Association is our chief hope to influence favorably the trend of coming events as affecting the medical profession in this country. We believe and urge that every doctor in the United States should unreservedly support the American Medical Association at this time. We believe that every constituent

county society should strive for a 100 per cent membership of qualified physicians in order that the support of the A. M. A. shall be one hundred per cent. There never has been a time in the history of medicine in this country when it was quite so important to have a perfectly functioning organization in every county. We have every confidence in the leadership of the A. M. A. and we are also confident that the large majority of the leadership in the constituent states think the same way about it but we should not be satisfied with a majority proposition only but should strive for a one hundred per cent loyalty. If this not impossible Utopian situation should be brought about in the emergency many other vexing problems aside from medical economics would also be solved in a satisfactory way and speedily. It is not necessary to name them individually. Our faith is unlimited in the possibilities of organized medicine being successful in any legitimate field of endeavor be it scientific or economic. While this editorial is intended to be rather specific in its application yet if the suggestions could be brought about as a fact the position of the medical man in this country would be immeasurably strengthened and probably stabilized for all time to come. We are in a strategic position now and owe a duty to the other nations of the world as well as to ourselves in taking a stand through organized medicine for the best interests of the health of the people of this country.

The South Carolina Sanatorium at State Park held its first home coming day program recently with marked success. The Sanatorium began in 1915 with sixteen beds and the capacity has increased to 278 beds with plans for the erection of a new thirty bed unit within the next few months. More than three thousand patients have been treated at the institution. Dr. Ernest Cooper has been the Supt. from the beginning.

The Piedmont Dental Society met at Seneca November 15, under the Presidency of Dr. J. L. Nickles of Seneca. Dr. Edgar A. Hines, Secretary-Editor of the South Carolina Medical Association delivered an address on the following subject, "Brief Comments on Some Changing Concepts in Medical and Dental Practice."

The Executive Committee of the State Board of Health met at Columbia, November 7 and received the reports of the various divisions of the Health Department and attended to the routine business of the Board.

The Post Graduate Course on Fractures held at Duke Hospital, October 12 and 13 was unusually successful with some three or four hundred physicians in attendance. A large number of the members of the South Carolina Medical Association were present and several of them took part in the program, notably, Dr. J. Warren White, Dr. A. T. Moore, and Dr. F. A. Hoshall.

The South Carolina Medical Association will meet at Florence, April 23, 24, 25, 1935. This date appears to have avoided important conflicts with Association meetings in this section of the country.

ORIGINAL ARTICLES

Immunization Against Diphtheria

By Hilla Sheriff, M.D., Spartanburg, S. C.

The first great advance in the crusade against diphtheria was made by Von Behring in 1890 when he introduced antitoxin. In the following years various investigators worked with mixtures of toxin-antitoxin and showed that an immunity to disease could be produced by their injection into animals. In 1908 Schick introduced the test that is known by his name for determining susceptibility to diphtheria. It was not until 1913, however, that the use of toxin-antitoxin was applied to humans by Von Behring. This preparation was an unneutralized mixture of toxin and antitoxin so combined that there was a slight excess of toxin. Von Behring worked on the hypothesis that the slight excess of toxin had an immunizing action. This theory, however, was disproved by Park & Zingher who showed an immunizing effect of fully neutralized mixtures of toxin-antitoxin, and thus subduing some of the irritating action of toxin. Hence, the conclusion was made that a dissociation of the combination of toxin and antitoxin took place in the body and that the toxin which was gradually liberated stimulated the production of immune bodies.

There has been an unbroken sequence of developments to improve and perfect the technique of the immunizing process. The ideal method of artificial immunization against an infectious disease should meet four specifications: (1) The number of treatments should be reduced to a minimum, (2) the period for development of immunity should approximate that of the incubation period of the disease, (3) the injection should be safe with little or no disagreeable reaction, and (4) the method should be as nearly perfect as possible in effecting lasting immunity. The vast amount of work

that has gone before has adhered always to this ideal.

It had been voted by many workers that the small amount of horse serum present in toxin-antitoxin mixture occasionally resulted in sensitization to horse serum. In order to obviate this danger an antitoxin prepared with goat serum was used for neutralization of the toxin. While these preparations were effective in from 70 per cent to 75 per cent of cases, it was realized that a preparation containing no foreign protein in the form of animal serum would be a distinct advantage. This need stimulated the search for a preparation that could be detoxified by a combination of chemical and physical means. Larson developed a detoxified toxoid by adding sodium ricinoleate, and this seemed to give satisfactory results in certain part of the country but never came into general use.

While all of these agents were fairly satisfactory in producing a negative Schick test, each had its disadvantages. The old T. A. T. was unstable and under certain conditions could become highly toxic. In addition, in order to obtain the best results, 3 injections were necessary. The desirability of reducing the number of injections to a minimum and at the same time of increasing the antigenic response led to the production of a toxoid of high antigenic potency detoxified by the addition of formalde. This toxoid developed by Ramon was given in 2 injections at an interval from 2 to 4 weeks. It was effective in producing immunity in about 80 percent of children in 3 months and in from 90 per cent to 95 per cent in 6 months. This proved to be an important forward step for the immunization was from 20 per cent to 30 per cent more effective; no sensitizing serum was present. The preparation was more stable and the reactions were not objectionable. Until approximately one year ago this was the preparation of choice.

Various substances have been added to toxoid with the idea of decreasing the rate of absorp-

Read before the Fourth District Medical Association, Union, S. C., Sept. 27, 1934.

tion from the site of injection and thereby producing a longer stimulation to the production of productive antibodies. Ramon in 1925 found that the addition of tapioca to toxoid slowed the absorption. In 1926 Glenny, Pope, Waddington and Wallace found that the addition of alum to diphtheria toxoid greatly increased its antigen value. In 1931 Glenny and Barry described the complete precipitation of diphtheria toxoid with alum and pointed out that the alum toxoid was slowly absorbed and remained in the body for a sufficient length of time to act as its own secondary stimulus.

In 1930 Havens & Wells of the Alabama State Health Department prepared a toxoid that was more or less completely precipitated by the addition of 2 per cent alum. The filtrate which contained about 75 per cent of the non specific proteins was eliminated. The precipitate, for further purification, was repeatedly washed with physiological salt solution in which solution it was later suspended and standardized to contain 10 plus flocculation units per cc. In the development of this product lower animals were used for immunization. It was not until 1931 that Graham first used it on a group of children in Lee County, Ala. with encouraging results. In 1933 Graham, Murphee & Gill reported further clinical experience with about 96 per cent immunity resulting from a single injection. McGinnis & Stebbins of Virginia obtained approximately 95 per cent immunity in a group of 579 Schick positive children, while Massey of Maryland in a group of 93 colored children obtained 98.8 per cent immunity following one injection of alum precipitated toxoid.

Dr. W. H. Park introduced the use of alum precipitated toxoid in the public schools of New York City, beginning Feb. 1934, and found that one dose conferred immunity in from 90 per cent to 95 per cent of susceptible children in from 2 weeks to 6 months.

Keller & Leathers of Nashville report 60 per cent negative Schick test on a group of 23 previously positive Schick children 14 days after injection of 1 dose alum precipitated toxoid, and 100 per cent in 42 days. In an address before a joint meeting of the Philadelphia Ped. Society, the New England Ped. Society and the Ped. Section of the N. Y.

Academy of Medicine, Dr. Park stated that the effect of alum precipitated toxoid was more than double that of toxoid in fluid form and that it was coming into universal use in this country.

The dose of alum precipitated toxoid agreed upon for establishing immunity is a single injection containing 10 antigenic units per cc. Some of our commercial houses have a 1 cc. dose and others put their product in a 1-2 cc dose. There is no significant difference between the results produced by one dose of 1-2 cc. of alum precipitated toxoid and one dose of 1 cc. of alum precipitated toxoid.

Immunization against diphtheria should be done during the pre-school years—that is before the sixth year of age. But it is advisable if this has not been done before the child reaches school age to immunize him during his first year of school. The ideal age for immunization is from 6 months to 18 months of age. It has been shown that young animals form antibodies poorly. Park states that attempts to produce diphtheria immunity are not advisable before 6 months of age. He ascribes the failure of production of antitoxin to the fact that younger children still retain their inherited passive immunity and thus over neutralization of the toxin-antitoxin occur.

The reaction from alum precipitated toxoid, local or systemic, if any, is usually mild. In the majority of cases an area of induration and redness varying from 4 to 8 centimeters in diameter appears at the site of injection. A small firm painless subcutaneous mass may remain for 6 or 8 weeks gradually decreasing. Only a low percentage of cases complain of pain in the arm and shoulder for several days. Very few have axillary adenopathy or show evidence of abscess formation. There is rarely a rise of temperature. Park states that he found practically no reactions in children under 2 years of age. On the whole reactions are so rare and mild that they demand little concern.

A follow-up Schick test should be done in from 2 to 6 months after injection of toxoid to see that the children to whom it was administered are immune as no immunizing product has been found to be 100 per cent always. If immunity is not acquired in a 6 months'

period, one dose of alum precipitated toxoid should be repeated.

In conclusion, alum precipitated toxoid is the superior immunizing agent against diphtheria. It comes near reaching the 4 specifications as ideal for an immunizing agent: (1) The treatment has been reduced to one dose and so refined that 1-2 cc. is sufficient to change a positive Schick test to a negative in a surpassingly high percentage of children. (2) Immunity is rapidly established in from 14 days to 6 months. (3) The injection is safe with little or no disagreeable reaction in most cases. (4) The product is slowly absorbed thus increasing its antigenic value. Immunization, however, should never be considered complete without a follow-up Schick test.

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The Use and Abuse of Drugs in the Treatment of Children

J. P. Price, M.D., Florence, S. C.

There are three facts, so it has been said, concerning which a man will brook no argument; the accuracy of his own watch, the manner in which he pokes a fire, and the skill with which he drives a car. A fourth factor might be added in the case of a physician—the ability which he possesses to prescribe drugs. Realizing this, it was with some misgiving that I chose the title for this paper and it is with greater misgiving that I present my thoughts at this time.

The art of therapeutics is an art which must be acquired through constant study and practice. The recent graduate of medicine may be an expert in diagnosis, but he is rarely proficient in the actual care and handling of a sick patient. It is an easy matter to say that cathartics or sedatives or respiratory stimulants are indicated in a certain condition, but it becomes difficult when one is forced to prescribe a specific drug, its dosage, and the method of administration. The ability to use drugs proficiently can only come through study, observation, and experience.

This is true concerning the use of drugs in general practice, but is especially true when we consider the use of drugs in the treatment of children. It was the thought at one time, and unfortunately the thought still persists in the minds of many physicians today, that a sick child is but a miniature sick adult and is to be treated accordingly. If a big dose is good for a big man, a little dose should be good for

a little baby—seemed to be the argument. That this is not true under many circumstances is now well organized. The art of drug giving in infants and children, especially the former, is an art which must be developed per se.

With these preliminary remarks, I wish to present briefly some observations which I have made with regard to the use and abuse of drugs in the treatment of children. These observations have been made through study, through experience, and through association with men of greater ability in the field of therapeutics than I. Of necessity my statements must be terse, and if they appear to be dogmatic it is due to lack of time for argument and not to a feeling on the part of the writer that his opinions are infallible.

Cathartics

There can be little doubt that more cathartics are given to infants and children than any other group of drugs. Calomel and castor oil appear to be the sine qua non in the minds of most parents and many physicians when treating sick children. When in doubt or when not in doubt, purge—seems to be the method of procedure. When I started practicing pediatrics in South Carolina, six years ago, an older physician made the comment that I would never succeed if I did not prescribe calomel. I have not used calomel and perhaps that accounts for the condition of my pocketbook, and not the depression.

Mild laxatives are of great value, but drastic purgatives should be used with utmost caution in dealing with children. To give a drastic purgative in the presence of a severe constipation or a beginning ileus may be justifiable, but to give such a drug in the presence of a mild gastro-intestinal disturbance is to invite increased irritation, perhaps to produce a rupture of an appendix, in an already irritated digestive system. To give a strong purgative at the onset of some infectious process beyond the gastro-intestinal tract is to court diarrhea as a complicating factor. To give a drastic purgative at frequent intervals in the treatment of chronic constipation is to afford temporary relief at the risk of permanent injury.

Mineral oil, milk of magnesia, cascara, and occasionally sodium phosphate are, in my opin-

ion, the cathartics of choice and are adequate in 99 per cent of cases.

Anthelmintics

One cannot decry too strenuously the indiscriminate use of "worm medicine." Any drug which is mild enough to be given to children with impunity in an effort to expel worms, is sufficiently mild to be almost valueless. Any anthelmintic strong enough to be effective is fraught with some danger. For that reason, I do not believe it wise to give an anthelmintic on the mere supposition that a child is "wormy." If a small dose is given with no result, a false sense of security is established. If a sufficiently large dose is given, the patient is subjected to an unnecessary risk. If possible, a positive diagnosis of parasitic infestation should be made in every case—a diagnosis which is not difficult through the aid of a laboratory—and then the chosen anthelmintic given in sufficient amount to give results.

Tonics and Blood Builders

"Doctor, give me a tonic for my child." How frequently every physician who deals with children in his practice will hear that plea, and how frequently will that same physician pass over a sample which some recent salesman has left, or else write a prescription for some preparation concerning which the manufacturers make wonderful claims.

As we consider these so-called tonics, it is evident that we are dealing with three types of drugs which I shall mention briefly. (1) *Appetizers*. These are drugs which have as their object the immediate stimulation of the appetite. Bitters, for instance, fall into this group, and they have proved to be of little value in children. (2) *General Tonics*. These are preparations which are slowly absorbed and are supposed to enhance the general welfare of the patient. They are of distinct value in many cases when used as adjuncts to a well rounded diet, but—and this point is so frequently forgotten by parent and physician alike—they do not supplant wholesome food. When physicians as a whole regard anorexia in children as a dietary problem to be solved along dietary lines, rather than as a simple condition which some tonic will alleviate, real progress

will be made. (3) *Blood Builders*. These are drugs which are used in the treatment of mild and secondary anemias in an effort to restore blood of normal content to the body. Next to blood itself in the form of transfusions, iron is the drug of choice, but iron in large doses. I have personally had most pleasing results from the use of iron and ammonium citrate, given in doses of from 10 to 20 grains three times a day. Liver has proved to be of doubtful value in secondary anemias in children, due in part to the difficulty of getting the little patients to take sufficient quantity each day.

Circulatory Stimulants

Adrenalin and caffein are the drugs of choice in the treatment of acute circulatory collapse. I have also used coramine with good result. For a gradually falling circulation during the course of an acute infectious disease, coramine and caffeine probably offer the most help. Digitalis in large doses given intramuscularly or intravenously is considered by some to be of marked value. The effect of adrenalin is very short lived. Camphor, formerly very popular, has apparently fallen into disrepute. Glucose solution, given intravenously, will often prove to be life saving in its effect. Oxygen, if this may be termed a drug, is also of great value especially in pneumonias. In chronic cardiac disease, digitalis is still the drug of choice when a drug is needed, but must be given in larger corresponding doses than in adults.

Respiratory Stimulants

At the present writing, caffeine seems to be the most popular respiratory stimulant. Coramine is also valuable, being well suited for use in those cases in which mental excitement is to be avoided. In asphyxia of the newborn, I have seen dramatic results follow the use of alpha-lobeline given intravenously. It has instituted respiratory movements where all other methods have failed.

Sedatives

Phenobarbital and the bromides are perhaps the most satisfactory and the safest of the mild sedatives. They are well tolerated by the little patients and can be given in surprisingly large doses. Chloral is of especial value in

controlling convulsions, its value being enhanced by the fact that the drug is easily given and readily absorbed by bowel. Magnesium sulphate intramuscularly is being used quite extensively at present in convulsive conditions.

Opium derivatives have fallen into some disrepute in dealing with infants and children, a condition which I think unjustified. These drugs, especially codeine and paregoric, used with discretion should fill a definite place in the physician's armamentarium. Dover's powder is also valuable. Morphine must be used with the greatest of caution.

ANTIPYRETICS

The indiscriminate use of drugs to reduce fever merely because the temperature is somewhat elevated is a practice which is to be deplored. We do not as yet understand the nature of fever — it is evidently a part of nature's mechanism in fighting infection, and to attempt to reduce that fever simply because it is fever is undoubtedly placing an obstacle in the path of the most rapid recovery.

In hyperpyrexia and in those cases in which the fever produces restlessness, headache, discomfort, or nervous symptoms suggesting impending convulsions or delirium, efforts should be made to reduce the fever. Hydrotherapy in the form of sponges, baths, and packs should be the method of choice, but, should this method fail to produce results, antipyretics may be used but with the greatest of care, especially in those affected by pneumonia and typhoid fever. I have seen severe shock in these two conditions following the rapid lowering of temperature by drugs. The preparations of choice are antipyrin, phenacetin, and aspirin. But again let it be urged that these drugs be used only when there is some indication beyond that of fever itself and that they be used with great care.

Specifics

The two specifics which are frequently used in treating children, exclusive of those drugs employed in the treatment of syphilis which I shall not discuss, are the salicylates and quinine. The salicylates are of great value in the care of rheumatic fever but they must be given in massive dosage to be effective. A six year old child will require from 60-120 grains a day. Quinine

is well tolerated by children. In those severe cases where there is coma or convulsions or vomiting, the drug may be given intramuscularly provided it is given well diluted in normal salt solution and is injected deep into the muscle. If injected subcutaneously in concentrated form, sloughing is almost sure to follow.

Glandular Extracts

Insulin and thyroid extract now hold a definite place in the physician's armamentarium. The other glandular extracts are still in the experimental stage in therapeutics and should be regarded as such.

Serums, Antitoxins, Vaccines

There are antitoxins which should be used whenever the specific disease is suspected; namely, diphtheria, tetanus, and meningococcic antitoxin. In scarlet fever, erysipelas, and streptococcus infections, the specific antitoxin is of great value in selected cases. The specific serum against the pneumococcus has proved disappointing in treating pneumonia in children.

Typhoid and smallpox vaccines have long since proved their worth in preventing disease in children. Pertussis vaccine has demonstrated its worth in helping to prevent whooping cough, but its value as a curative agent is still questionable. Toxoid and toxin-antitoxin should be universally used to prevent diphtheria, toxoid undoubtedly being the preparation of choice. All children who are six months of age and over should have the benefit of their protection.

Conclusion:

An effort has been made to present certain observations with regard to the use and abuse of drugs in the treatment of infants and children. No attempt has been made to cover the entire field of pharmacology, but an effort has been made to consider those commoner drugs which are used in daily practice.

DISCUSSION

Dr. E. M. Dibble, Marion:

I enjoyed listening to Dr. Price's paper very much, for it is timely and one that should interest every one of us who are in general practice. I have to disagree with him on one of his first statements. He

says that he does not use calomel. I know most older doctors have been using calomel since they have been in practice and find it a most useful drug. I think if Dr. Price will put a little study on the use of one of our most easily administered and most effective drugs, his pockets will fill up a little bit.

Dr. Price did not say anything about his method of giving drugs. Of course, little children are very hard to give medicine to, and it ought always to be borne in mind that if we have to give them drugs or medicines they should be made as pleasant as possible and given in as small doses as we can, so that they will not have to take a large quantity of a nauseating drink.

We know that when a child has fever, that is the main thing that worries the mother or nurse or other attendant. If you don't give something for fever, why they are going to give it, anyhow. So I think the best plan is to give some pleasant, harmless thing and, at the same time, advise the use of hydrotherapy.

I enjoyed the paper very much.

Dr. William Egleston, Hartsville:

I happen to be often associated with Dr. Price. The weakness of a paper of this sort lies in the fact that the pediatrician is closely associated with a clinic or hospitals and has so many opportunities of treating children that do not present themselves to the general practitioner.

I think the mistake in giving calomel in general practice to children is with the idea of giving it as a cathartic or purgative. I must confess I give it much less than I did. I think we get the effect from calomel in very small doses, whether we get a bowel movement from it, or not. It ought to be given neither as a laxative or as a purgative but for definite results. These results no other drug will give.

The matter of antipyretics, for the general practitioner, is very much more of a problem than for the physician associated with a hospital. We have to give something, because the family demands it; and I see no objection to giving small doses of an antipyretic, because it will keep the fever in bounds and will quiet the child. In pneumonia, for instance, and other sicknesses children have, I do not think, if given in small doses, it will do any harm at all.

Dr. Price has left out what I consider the most important drug in the treatment of small children, and that is whiskey. I believe, after practicing for thirty-six years, if I had to use only one drug in the treatment of small children, I would choose whiskey, given always with sugar and cold water. I think it definitely supplies something in the treatment of small children that we get from no other drug and no combination of drugs, stimulation, nourishment appetizer and digestant. Of course, you can not give it in acute gastric conditions. But I do think that we have, in the chronic conditions of children and in all the slow conditions, one of the finest drugs in good whiskey that we can find.

Dr. R. M. Pollitzer, Greenville:

At the outset, I wish to say I have quite a grudge against Dr. Price because he has written this paper, which I have been meaning to write for a long time. He beat me to it.

I would classify doctors rather dogmatically as prescribing doctors and examining doctors. I do not mean that prescribing doctors never examine. But many doctors, when a child is brought in and the mother says it is vomiting and has diarrhea, immediately reach for a prescription pad and quickly prescribe something. The examining doctor, when a child is brought in in that condition, says: "Well, something is causing this vomiting—maybe an ear abscess, perhaps tonsillitis," and he will try to find it and does not prescribe until he has given the patient a proper physical examination. He is not willing to treat without first attempting to diagnose.

I do not use calomel and do not use castor oil, and most of my children get well. My pocketbook is sort of flat, but I have a little something in it. I have worked in two large children's hospitals in this country, and neither one used castor oil. I do sometimes, maybe once or twice a year, give castor oil when a child is full of green apples, or something like that, and I want to get rid of it in a hurry. I do not use calomel except in syphilis. I do not for one minute believe that it should be used as it now is. Children get well without it. I have seen children brought to me after two or three weeks who have had a round of calomel and of castor oil and then calomel again. They are alive, but many times they have not had a diagnosis. I seriously object to the doctor's use of calomel as a placebo, for lack of a diagnosis.

Whiskey, I think, is a good drug in pneumonia and typhoid and some other conditions. Of course, it should not be used in all cases nor at all stages. In fact, I object strenuously to any routine treatment, and I feel that too many of us have fallen into the evil way of immediately giving drugs for certain symptoms without regard to the origin of the symptom, and without having a very clear idea of what we wish to accomplish, or whether it is wise to interfere with what nature is doing.

Dr. F. E. Zemp, Columbia, S. C.

I consider Dr. Price's paper a very valuable one. The indiscriminate use of drugs is a bad thing and may do a great deal of harm at times. The question we should ask ourselves is this: Will this drug do the patient any harm? If the answer is no, and we think the drug has some value then the discriminate use of it might do a lot of good. The thought presented in this paper is well worth keeping in mind.

Dr. William Weston, Jr., Columbia:

I think Dr. Price is to be congratulated upon reviewing the pharmacopeia in such a brief space of time.

I want to rise to a point of personal privilege on

the question of calomel. It is surprising to me that we Southerners have as much courage as we have, having lost so much gall in infancy.

Dr. Price did not mention chloroform, which I think is a drug that is well used in controlling convulsions.

The use of various drugs has been brought out, and I think Dr. Eggleston is right when it comes to the proper use of good whiskey, when properly advised.

There have been fields of medicine which have been invaded by outsiders. In this connection, I want to speak of what we have lacked in medicine. I think the materia medica and the pharmacology courses ought to be taught hand in hand with medicine. When we get to medicine it seems that we are taught to forget what we have learned in regard to drugs. In this connection, we have osteopaths, who have invaded the field of medicine because we have not used the agencies we have, and the chiropractors, who have invaded the field of medicine because we have not done what we should have. We must not be therapeutic nihilists, but use the drugs we have and use the other agencies we have, so as not to open the field for the chiropractor and similar charlatans.

Dr. Price (Closing the Discussion):

I want to thank these gentlemen for their discussion. It seems to me my missionary work must go on. For six years I have been in Florence and have seen Dr. Dibble and Dr. Eggleston almost every week, and our argument about calomel goes on and on. I just hope that six years from now, if I read a paper, they will not be using calomel.

Typhoid Fever, The Alkaline Treatment

By W. T. Lander, M.D., Williamston, S. C.

The inception of this method of treatment was in an epidemic of Typhoid Fever at Greenwood, 1905. Laboratory workers were few. My doctor friends had me to do their urinary studies and Widal's. In making some bouillon for cultures I was interrupted and made some misstep. The germs would not grow. Something was wrong. On comparing with a suitable bouillon, I found this lot was a little too alkaline. This condition led to some interesting experiments to see effects of reaction on bacterial growth. In a series of samples the alkalinity was increased in minute gradation. It was found that an infinitesimal alkalinity would

Read before the Anderson County Medical Society, October 10, 1934.

inhibit growth, and a slight alkalinity would kill the germs.

(Such way of speech may offend the meticulous phraseology of the present day scientist. The experiments, however, were accurate, though accurate descriptive terms may not be at hand. This was before that Columbus of Chemistry, Sorensen, discovered pH.)

What interpretation could be put upon these observations except that the administration of an alkali may be expected to kill out the typhoid bacillus? Such was the conviction of my preceptor, Dr. R. B. Epling—now gone to his reward—and me. At once we adopted it as the basis of treatment. While developing the details, we had two patients to die; none since then.

While not undertaking to discuss the subject of Typhoid fever in general, the essential points of this treatment I should like to present.

What alkali shall we use? Lithia, almost a fad at that time, we tried on one case. The continued large doses caused unpleasant twitchings, which led to its abandonment. Potassium salts may weaken too much the heart, already tried by the fever. Against sodium no objections could be found. This was our choice: the citrate or the acetate, since they would not disturb the digestion nor offend the taste.

The effect upon the pH is evanescent. The doses, accordingly, must be frequent—three hours apart—and some must be given during the night. The best effect seems to be obtained if the medicine is given a short time before food. The dose must be sufficient: for adults usually 20 grains. Urinary test will guide. Do

not be reckless: we must remember there is such a thing as alkalosis.

The test for Indican should be made at first and at intervals of a few days. If it shows, a dose of castor oil should be given. The presence of Diacetic Acid calls for attention to the liver. We have found the tablet Calomel, Ipecac, and Soda very satisfactory. We suggest a tablet every hour, or two at each feeding until effective.

The diet should be sufficient, the stomach burden relieved by digestants. Let the bread be dextrinized by slow, thorough toasting, the middle of the slice as brown as the sides. The protein foods may be taken with some vegetable digestant, or predigested with Pancreatin. Besides milk, which is usually safe if given with a digestant, puree of any kind of beans or peas; eggs, tender meats, and fish; strained tomato juice, fruit juices, and jellies; butter, honey; other things, as good sense may suggest.

General comfort, cleanliness and disinfection, untoward symptoms, look after the best you can, as usual. Steer clear of the heart damaging coal tars. I have never given a dose to a Typhoid case. If unskillful baths should be a nuisance to the patient, they need not be counted a sacred essential. Very few of my patients could employ a trained nurse; and usually water could be used only for reasonable cleaning purposes; not relied upon as the staple antipyretic.

The fever may be expected to abate by the seventh or eighth day. If not, some intercurrent infection may be looked for: malaria or the colon bacillus. Twice I have had both.

The American Association for the Study of Goiter again offers the Van Meter Prize Award of \$300 and two honorable mentions for the best essays on the subject of goiter provided they meet the standards of the award committee. The essays should be based on original research work on the subject of goiter, preferably its basic cause. The prize essay or its abridgement is to be presented at the annual meeting of the Association to be held in Salt Lake City, Utah, in June 1935.

Competing manuscripts should be in the hands of

the Corresponding Secretary, W. Blair Mosser, M.D., Kane, Pa., not later than April 1st, 1935.

Announcement

The Radiological Society of North America will hold its next Annual Meeting at the Hotel Peabody, Memphis Tennessee, December 3-7, 1934. The Medical Profession is cordially invited to attend. Further information can be obtained by addressing the Secretary-Treasurer, Dr. Donald S. Childs, 607 Medical Arts Building, Syracuse, New York.

SURGERY

WM. H. PRIOLEAU, M.D., F.A.C.S., CHARLESTON, S. C.

TREATMENT OF ACUTE TRAUMATIC HAEMOTHORAX

Confronted with a case of acute traumatic haemothorax the average physician is in a state of dilemma as to what to do. This is because he does not know the extent of the deep injury, and to find out or attempt to repair it requires an operative procedure of such a type as to endanger the patient's life, and unnecessarily should the injury prove to be a minor one. Yet to employ the expectant method of treatment in all cases is unsatisfactory as it would seem to sacrifice some patients who might be saved by other means.

What appears to be an active yet safe method of treatment is advocated by Dr. Duval Prey of Denver (*Annals of Surgery* 100:442, Sept. 1934). It is the aspiration of the blood with the simultaneous injection of air. The blood is aspirated through a large needle at the base while the air is injected through a smaller needle inserted higher. At least one third more air is introduced than blood is withdrawn. The result is an effective compression of the lung with arrest of the haemorrhage. The patients do remarkably well. Their hospital stay is only one half as long as that of those who recover by other methods of treatment.

In a discussion of the subject Dr. Prey brings out several important points. If the injury is slight the patients will recover regardless of the type of treatment. The mortality in these cases occurs in from the first few minutes to few hours. It is caused by exsanguination, and displacement of the mediastinum. The blood acts as a poor compressor of the lung and thus the bleeding continues. The injection of air effects excellent compression with resultant arrest of haemorrhage. It is practically devoid of danger, which can not be said of radical surgery. Though the pleura is more resistant than is commonly supposed, old blood left in the pleural cavity is an excellent culture medium and predisposes to infection. If absorption is poor, a thickened pleura sometimes results from such an accumulation of blood.

The author presents a series of cases treated by this method and by other methods, particularly the expectant one. The numbers are too small to warrant the drawing of definite conclusions. The method advocated by him is of sound principle and has given very good results in his hands. It is worthy of earnest consideration. Off hand one might suspect the danger of air, embolism, but this does not seem to have been experienced by him.

RIDGE MEDICAL SOCIETY MEETS

The Ridge Medical Society met the fifteenth of October, 7:30 P.M. with a fair attendance of members and three visitors, Drs. Waters and W. B. Timmerman of Johnston and Dr. T. H. Symmes of St. Matthews.

Dr. D. B. Frontis exhibited a case of fatty enlargement of thighs, buttocks and abdomen and reported another similar case.

This case elicited discussion from most of those present.

Dr. W. P. Timmerman reported a case of a young lady who had symptoms at first which simulated malaria, later typhoid and which ended fatally.

This was ably discussed by Drs. Wm. Timmerman,

W. W. King, Walker, Symmes and Frontis.

Dr. R. H. Timmerman read a paper on diuretics and blenorrhethics.

Dr. E. P. Taylor reported a case of fainting in which a diuretic instead of stimulant was given due to wrong label on bottle.

The result was excellent but his descriptions, etc., were amusing.

Dr. Symmes, after expressing his pleasure at being with us read an interesting paper on influenza and its causes, modes of infection, treatment, etc.

His address was discussed by Drs. Asbill, Ridgell, King and Wise and W. P. Timmerman.

Supper was served in The Rutland Hotel.

W. P. Timmerman, Secy.

WOMAN'S AUXILIARY

SOUTH CAROLINA MEDICAL ASSOCIATION

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WESTERN YORK

The Woman's Auxiliary to the medical men of Western York held its fall meeting in York, October 22, at 3 o'clock. Mrs. J. D. McDowell, president was in the chair. Roll call and reading of the last minutes were read and approved.

The Treasurer reported enough funds raised to pay our last year's Student Loan Fund obligations.

Motion was made and carried that we enlarge our membership before the next meeting.

Motion was made and carried that renewed efforts be made to place Hygeia in all the High Schools of Western York.

Motion was made and carried that we have a health program at each auxiliary meeting, and that the activities of our auxiliary shall be disseminated as far as possible.

Motion was made and carried that we meet quarterly instead of semi-annually as heretofore.

There being no further business the meeting stood adjourned, after which a delightful social hour was enjoyed by all.

Mrs. C. P. Corn, President of the Woman's Auxiliary of the State Medical Association and Mrs. L. O. Mauldin, Past President of the Auxiliary and Chairman of the Publicity Committee attended a joint meeting of the Oconee County Medical Society and the Woman's Auxiliary at the home of Dr. and Mrs. J. W. Bell of Walhalla, October 18.

Mrs. Corn delivered a most inspiring and informing address on the work of the Auxiliary of South Carolina and gave a brief report of the wonderful success of the Auxiliary throughout the country.

Mrs. Corn reported ten active county auxiliaries in the State with prospects of increasing this number rapidly at an early date. Mrs. L. O. Mauldin spoke of the aims and objects of the Student Loan Fund, of which Mrs. J. W. Bell is the State Treasurer. This meeting was largely attended and at the close delightful refreshments were served.

STUDENT LOAN FUND

Statement for year (April 16, 1933, to May 2, 1934, Reported by Mrs. Boyd, Spartanburg meeting,

April 16, 1933 Cash on hand	\$328.00
Paid to Student Sept. 6, 1933	\$125.00
Paid to Student Dec. 29, 1932	125.00
	\$250.00
U. S. Tax	.04
Total	\$250.04
Collections in full from Auxiliaries	\$210.05
Credit back for check	.02
	\$210.07
Balance Cash on hand	\$328.00
Cash Collected	210.07
	\$538.07
Cash Paid out	250.04
Balance in bank	\$288.03

Mrs. J. W. Bell, Treasurer
Student Loan Fund.

MEDICAL AUXILIARY OF ROCK HILL PLANS YEAR'S WORK

Featuring a full business session and delightful social half hour, a meeting of the Medical Auxiliary was held Wednesday afternoon at the home of Mrs. J. R. Miller on Park Avenue.

Work for the coming year was outlined and a number of committees appointed. Decision was reached to meet the first Wednesday in each month through April.

Committees appointed were: Program—Mrs. Frank Strait, Mrs. L. A. Bigger, Mrs. S. H. Shippey.

Refreshment—Mrs. Rosa Strait, Mrs. C. B. Harrell, Mrs. D. A. Bigger.

Entertainment—Mrs. W. W. Fennell, Mrs. W. R. Blackmon and Mrs. Roderick MacDonald.

A social half hour followed with the serving of

delicious refreshments, Mrs. Miller being assisted by her daughter, Miss Elizabeth Miller.

Those present were: Mesdames W. W. Fennell, S. H. Shippey, Rosa Strait, E. E. Herlong, C. B. Harrell, Mrs. Frank Strait and J. B. Blanton, of Mooresboro, N. C.

MRS. CORN HOSTESS AT LUNCHEON TO AUXILIARY COMMITTEE

Mrs. Charles P. Corn entertained at luncheon Nov. 7, a committee from the Auxiliary to the South Carolina Medical Society of which she is president. The committee which was appointed early in the summer to revise the constitution is composed of Mrs. L. O. Mauldin, Greenville, chairman; Mrs. C. L. Blake of Spartanburg, Mrs. J. C. Pepper of Easley, Mrs. J. W. Bell of Walhalla, and Mrs. W. C. Abel of Columbia.

The Committee met at the Poinsett Hotel and at the luncheon hour were entertained in the main dining room by Mrs. Corn who as president of the Auxiliary is an ex-officio member of the committee.

A short afternoon session was also held. The important work of revising the constitution will be among the outstanding accomplishments of Mrs. Corn's administration.

Members of the committee who live out of the city returned to their homes in the afternoon.

EXPERIMENTAL STUDIES IN VASCULAR REPAIR

O. Jason Dixon, Kansas City, Mo. (*Journal A. M. A.*, Oct. 13, 1934), states that as thrombosis is the first change that occurs in the process of vascular injury, it becomes an important step in vascular repair. Certain vessels such as the sigmoid sinus are not amenable to ligation and suture repair. In the field of otolaryngology, this vessel is frequently infected and presents many perplexing problems. It is to the sigmoid sinus that the major portion of the author's experiments on dogs have been directed, although it has been necessary to resort to other venous channels in animal experiments. He states that the etiologic factors that enter into the repair and restoration of the normal function of the venous channel are the manner in which the vein is injured, the amount of destruction of the vein wall, whether it is infectious, traumatic or both and the duration of the inflammation; the condition of the patient's blood also plays an important part in all tissue repair. He discusses the technic and gives the results of his experiments with viable and nonviable tissue. He also gives the clinical application of the technic and concludes that viable muscle, i. e., sternocleidomastoid muscle, when use in repair for either intentional or accidental injuries to the sigmoid sinus, is not only the best means available for the control of hemorrhage and promotion of healing but, when it is used, one may expect a recanalization and complete repair, the sigmoid sinus being restored to its normal function as a blood carrier.



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- - - BOOK REVIEWS - - -

SPINAL ANESTHESIA, TECHNIC AND CLINICAL APPLICATION, by George Rudolph Vehrs, M.D., Salem, Oregon. Illustrated. St. Louis, The C. V. Mosby Company, 1934.

This volume goes back in its survey of the field of spinal anesthesia for forty nine years. This means an extensive knowledge of anatomy, physiology, and much of the allied sciences. The illustrations are extensive and very valuable to a clear cut understanding of a resume of the subject as well as for practical application in the practice of surgery. It would appear that there has been an increasing number of surgeons and hospitals resorting to spinal anesthesia. It is not a method to be undertaken lightly and therefore is by no means fool proof, and probably never will be. The trained anesthetist is becoming more and more to be a necessity in the American operative rooms, with the vast increase of our knowledge of the subject. This means that no one method of anesthesia will ever again become the best method for every case. There is a tendency to require the profession anesthetist to be a graduate in medicine. The illustrations in this book are exceptionally good. There are eighty one of them showing in detail the technique of spinal anesthesia.

ALLERGY, A Handbook for the Physician and Patient, on Asthma, Hay Fever, Urticaria, Eczema, Migraine, and Kindred Manifestations of Allergy, By Warren T. Vaughan, M.D., Second Edition—Revised and Enlarged. The C. V. Mosby Company—Publishers—St. Louis, U.S.A.

The main divisions of this book is as follows: Part I, ALLERGY; Part II, ALLERGENS; Part III, DIAGNOSIS; Part IV, THERAPY; Part V, PROGNOSIS; Part VI, THE MANIFESTATIONS OR ALLERGY; Part VII, APPLIED IMMUNOLOGY.

This book appears to have been written originally for both the physician and the layman which is rather a rare method of approach. Some of the questions about allergy are as follows.

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Why must they now be called something else?

If I am allergic, how did I get that way?

What must I do to overcome it?

How many other folks have this disease?

Does it affect them all alike?

Regardless of the way of approach it is certain

that both doctors and laymen have much to learn yet about allergy and Dr. Vaughan has stepped in the breach with a very fine book on the subject and a vast amount of information in it. He gives a hopeful note in the treatment of these more or less difficult diseases. This is the second edition revised and enlarged.

COLWELL'S DAILY LOG FOR PHYSICIANS.

By John B. Colwell, M.D., Colwell Publishing Company, Champaign, Illinois. Price, \$6.00.

About this time of the year many physicians cast about for better ways and means of keeping their accounts. No book-keeping system is perfect and it has seemed to be something of a difficult matter to devise a universally satisfactory system for doctors. This one has a good many features worthy of trial. It is simple and yet comprehensive enough for almost any demand. There is provision for a daily record, a monthly summary, and at the end of the year an easy way of finding out the years summary. There are spaces for obstetrical records, personal accounts, etc. One of the reasons for using such a book is that it seems to make it easier for the doctor to know where he stands with reference to his income tax reports.

THE SPASTIC CHILD, A Record of Successfully Achieved Muscle Control in Little's Disease. By Marguerite K. Fischel. The C. V. Mosby Company—Publishers, St. Louis, Mo.

This small book has the following chapters: Chapter I, The First Child; Chapter II, Etiology or Cause of Little's Disease; Chapter III, The Second Child; Chapter IV, Outline of Issues in Rehabilitation; Chapter V, The Years Three to Nine; Chapter VI, The Years Nine to Thirteen; Chapter VII, The Years Thirteen to Sixteen.

The book is concerned with the story of two boys both afflicted with Little's disease and is written by the mother whose untiring efforts brought about remarkable success in the management of this unusual disease.

THE COMPLETE PEDIATRICIAN, Practical, Diagnostic, Therapeutic And Preventive Pediatrics For The Use of Medical Students, Internes, General Practitioners, And Pediatricians. By Wilburt C. Davison, M.A., D.Sc., M.D., Duke University Press, 1934, Durham, N. C.

The author of this remarkable book is well known throughout the country and especially in South Carolina. The plan of the book is decided-

ly different from that of the ordinary volumes on pediatrics. There is a decided stress on the value of the clinical approach, and yet the laboratory has a very important place in the picture. The work is the result of something like a decade, of rather intensive research and compilation delving into many fields of the allied sciences. The first chapter opens with the symptoms and signs of disease in children. Very naturally there follows a test of the physicians knowledge of the normal child, as he goes along in his examination. The laboratory and the x-ray examinations appear last in this scheme of things of the first chapter rather than first as sometimes some people are inclined to place them. In the second chapter the author states under the head of diseases, differential diagnosis and treatment, that pediatrics comprises 307 distinct diseases or conditions, of which 158 are common and 149 rare. These then are separated into groups. There are seven chapters in the book. The last one being concerned with extensive but practical laboratory and x-ray methods. The appendix section concludes with a number of important suggestions and bits of information. For instance the very last word under appendix C. is the Contents of a Pediatrician's Bag. We

have never seen so much information collected in one small volume and presented in such a unique way. The author states that the book is to be a ready reminder to be carried like a stethoscope in a physician's pocket or bag. The cross references and the extraordinary index serve to place at a moment's notice this *vade mecum* of all things pediatric ready for use.

SYNOPSIS OF GENITOURINARY DISEASES.

By Austin I. Dobson, M.D., F.A.C.S., Richmond, Virginia. Professor of Genitourinary Surgery, Medical College of Virginia; Genitourinary Surgeon to the Hospital Division, Medical College of Virginia; Genitourinary Surgeon To Crippled Children's Hospital; Urologist to St. Elizabeth's Hospital; Urologist to St. Luke's Hospital and McGuire Clinic. With 111 Illustrations. St. Louis, The C. V. Mosby Company.

This is a comprehensive manual worthy as a guide not only to the student but to the general practitioner. The drawings are excellent and numerous. Under the head of treatment a definite line of procedure for the most part is recommended rather than numerous alternatives.

MOTION PICTURE OF HEADQUARTERS ACTIVITIES

From time to time the suggestion has been made that a motion picture be prepared of the headquarters activities of the American Medical Association so that county and state medical societies as well as other organizations might be informed of the nature of the work in the headquarters office. Last year the Board of Trustees appointed a committee, headed by Dr. Austin A. Hayden, to supervise the preparation of a 16 millimeter film for this purpose. The film has now been prepared and has already been shown at a meeting of the Chicago Medical Society and at a meeting of the editors and secretaries of state medical societies. As yet but one copy of the film is available. It shows the personnel of the various bureaus and councils of the Association, the executive officers, the members of the board of Trustees and of the House of Delegates, the composing, printing, binding, addressing and mailing departments, the manuscript editing rooms and the library, and many other activities of the headquarters office. Arrangements have been made to lend this film to county and state medical societies together with a projector and a screen. Work on the picture is proceeding and it is not yet considered a finished task. It is planned to add pictures of all the different councils and official bodies so that the film will constitute a true record of the history of the Asso-

ciation at this time. Adequate subtitles explain the nature of the work shown, but the affairs are so complex that space is simply not available in a subtitle to indicate fully the significance of the various activities. The Board of Trustees and the office of the Secretary of the Association will be interested in hearing from county and state medical societies or other bodies that are interested in showing this film.—*Jour. A. M. A.*, Oct. 13, 1934.

EFFECTS OF CASTRATION IN ADULT MALE

In order to increase familiarity with the diagnostic evidence of hypogonadism in men, E. P. McCullagh and J. F. Renshaw, Cleveland (*Journal A. M. A.*, Oct. 13, 1934), subjected twelve postpubertal castrates to careful clinical and laboratory studies, including bio-assays for the gonad-stimulating principles of the urine, and another substance from the urine, presumably a testicular hormone which promotes comb growth in capons. They present their observations, report a typical case and under treatment state that in a few of these cases an attempt has been made at substitution therapy, with androtrin, the male sex hormone prepared from urine. When sufficient material was available for adequate dosage, there was considerable improvement in the subjective symptoms of hypogonadism. These results have been most encouraging, but it is too early to evaluate accurately the benefits that may be anticipated from this type of treatment.

- - SOCIETY REPORTS - -

MINUTES

The Oconee County Medical Society met at Walhalla, Thursday, Oct. 18, 1934, 3 P. M. Dr. S. H. Ross, President in the Chair.

The Minutes of the previous meeting were read and approved.

Miss Plowden of the Oconee Relief Organization was invited to appear before the society and discuss with the members the workings of the relief for the Indigent Sick.

The Scientific program was then entered into. The first paper as by Dr. W. A. Strickland of Westminster on the subject, "Should all Tonsils Come Out? If Not, Why?" Dr. Strickland gave an unusually able survey of the whole tonsil question as to the indications and contra indications for removing the tonsils.

The next paper was by T. R. Gaines of Anderson invited guest who discussed in detail the technique and general management of tonsil operations.

Both of these papers elicited animated discussions. These two essayists evidently interested every mem-

ber of the Society by their clear cut convictions born of a large experience.

Dr. J. R. Young, Past President of the South Carolina Medical Society was a visitor and took part in the discussions.

The following members were present, Drs. Ross, Bell, Davis, Stribling, Hines, Sloan, Strickland, Johns.

The Society adjourned to the beautiful home of Dr. and Mrs. J. W. Bell for a joint meeting with the Woman's Auxiliary. Mrs. C. P. Corn of Greenville, President of the Woman's Auxiliary to the South Carolina Medical Association delivered a splendid address on the aims and objects of the Woman's Auxiliary. Mrs. L. O. Mauldin of Greenville, past President of the State Auxiliary and now Chairman of the Publicity Department was present and discussed the Student Loan Fund sponsored by the Auxiliary. Delightful refreshments were served after which the joint societies adjourned.

E. A. Hines, Secretary.

The American College of Physicians will hold its Nineteenth Annual Clinical Session in Philadelphia, April 29-May 3, 1935.

Announcements of these dates is made particularly with a view not only of apprising physicians generally of the meeting, but also to prevent conflicting dates with other societies that are now arranging their 1935 meetings.

Dr. Jonathan C. Meakins, of Montreal, Que., is President of the American College of Physicians, and will arrange the Program of General Sessions. Dr. Alfred Stengel, Vice President in Charge of Medical Affairs of the University of Pennsylvania, has been appointed General Chairman of local arrangements, and will be in charge of the Program

of Clinics. Mr. E. R. Loveland, Executive Secretary, 133-135 S. 36th Street, Philadelphia, Pa., is in charge of general and business arrangements, and may be addressed concerning any feature of the forth-coming Session.

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THE NOMENCLATURE OF GLANDULAR PRODUCTS

The novice in endocrinology finds himself bewildered not only by the tremendous number of recent contributions to glandular physiology but also by a new and unfortunately confused vocabulary. Ordinarily the addition of a few hundred words to the dictionary would concern chiefly the lexicographers; but the many names, synonyms (real and alleged) and trade marks in this field are so liberally interspersed in modern medical literature that the latter is all but incomprehensible to any one except an expert. In addition to the many terms invented from time to time by research workers in many parts of the world, the situation has been made even more difficult by the tendency of each of a number of commercial firms to register its own trade mark for a product to which otherwise, in most cases, it has no proprietary claim. The language of medicine appears to have been more burdened than enriched by the new nomenclature.

Perhaps the most striking case in point is that of the use and misuse of the numerous designations applied to estrogenic preparations. These are variously called female sex hormone, estrin (oestrin), follicular hormone, folliculin, theelin (ketohydroxyestrin, estrone), theelol (follicular hormone hydrate, trihydroxyestrin, estriol), and by such trade names as amniotin, progynon, emmenin and menformon. Still other names are employed. Many of the foregoing terms are not satisfactory designations and they may not all be considered synonymous. Theelin and theelol are recognized by the Council on Pharmacy and Chemistry as nonproprietary names for two crystalline compounds isolated from the urine of pregnant women. When these crystalline substances are referred to they should be designated by these names (English workers subsequently proposed the synonymous terms estrone and estriol). But at the present state of knowledge it is not warranted to refer to the estrogenic agent of unknown constitution in the blood stream, ovarian follicular fluid, certain plants and other sources by these names. All that is known is that these are "estrogenic substances"; they should therefore be so designated, and the source stated, until the chemical relationship of each particular substance to theelin and theelol is established. The only satisfactory method at present available for determining the presence of such agents is the production of estrus (or preestrual changes) in castrated animals. To speak of the "estrogenic

factor" in the blood, for instance, is therefore clear, concise and unmistakable. If this factor is later shown chemically to be theelin or theelol, it may then be so designated. Such terms as "female sex hormone" imply more than may be true; there is doubt that such a hormone actually exists. Estrogenic substance may be found in male urine and it has been claimed that a substance having the characteristic actions of the testicular hormone has been obtained from female urine. There appear to be only slight chemical differences among theelin, theelol and the substance crystallized from male urine that affects the accessory male sexual apparatus. It is not known whether the estrogenic substance in male urine has any function in the male organism or whether the principle in female urine having the effects of the testis hormone has any essential activity in the female. It is therefore preferable to avoid referring to either male or female "sex hormones."

The situation with respect to the pituitary is hardly better. Little confusion would exist if it were customary to designate new and relatively impure extracts according to their effects, instead of coining new names for them. Thus such phrases as "growth hormone," "follicle-stimulating factor," "luteinizing principle" and "lactogenic factor of the anterior pituitary" convey the exact meaning intended. They are as clear to the novice as to the expert. In contrast, "prolan" is applied both to the gonadotropic factors of the pituitary and to the anterior pituitary-like gonadotropic principle from the urine of pregnant women; these were once thought identical, but more recent evidence indicates that they are different. "Antuitrin" is a trade name for an extract of the anterior pituitary; "antuitrin-S" is used to designate the anterior pituitary-like gonadotropic factor from the urine of pregnant women. Many other illustrative examples could be adduced.

By the use of short descriptive phrases, preferably instead of coined names but at least in conjunction with them, many unfortunate misapprehensions and much confusion may be avoided.—*Jour. A. M. A.*, Oct. 13, 1934.

DISSECTING AORTIC ANEURYSM WRONGLY DIAGNOSED CORONARY THROMBOSIS

A case is reported in which the prolonged severe chest pain that Paul D. White, Theodore L. Badger and Benjamin Castleman, Boston (*Journal A. M. A.*, Oct. 13, 1934), attributed to thrombosis of a good

sized coronary artery resulting in a large myocardial infarct was without doubt due to the splitting of the coats of the aortic wall in the formation of the dissecting aneurysm. The beginning of the resolution of the blood clot in the aortic wall undoubtedly caused the fever and leukocytosis, which again they wrongly attributed to the resolution of a myocardial infarct. Finally, the sudden death due to the rupture of the aortic wall into the right pleural cavity after eight days of illness they considered at the time to be due to rupture of the wall of the heart itself, to the overwhelming effect of an attack of angina pectoris or to ventricular fibrillation. They state that clues that should have helped them at least to question their diagnosis and to consider dissecting aortic aneurysm were (1) the maintenance of hypertension through the course of the acute illness, (2) the excellent heart action throughout and (3) most important of all, the absence of coronary T waves from the electrocardiograms of a severely ill patient during the first five days after the onset of the chest pain. An important symptom that may aid in at least suggesting dissecting aortic aneurysm, pain in the back or referred to the back, was absent in the authors' case. Anterior pain of the chest did radiate laterally, but that happens with coronary thrombosis. Also the pain had a tearing character, but its suffocating quality was in keeping with coronary pain.

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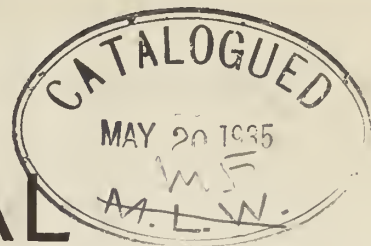
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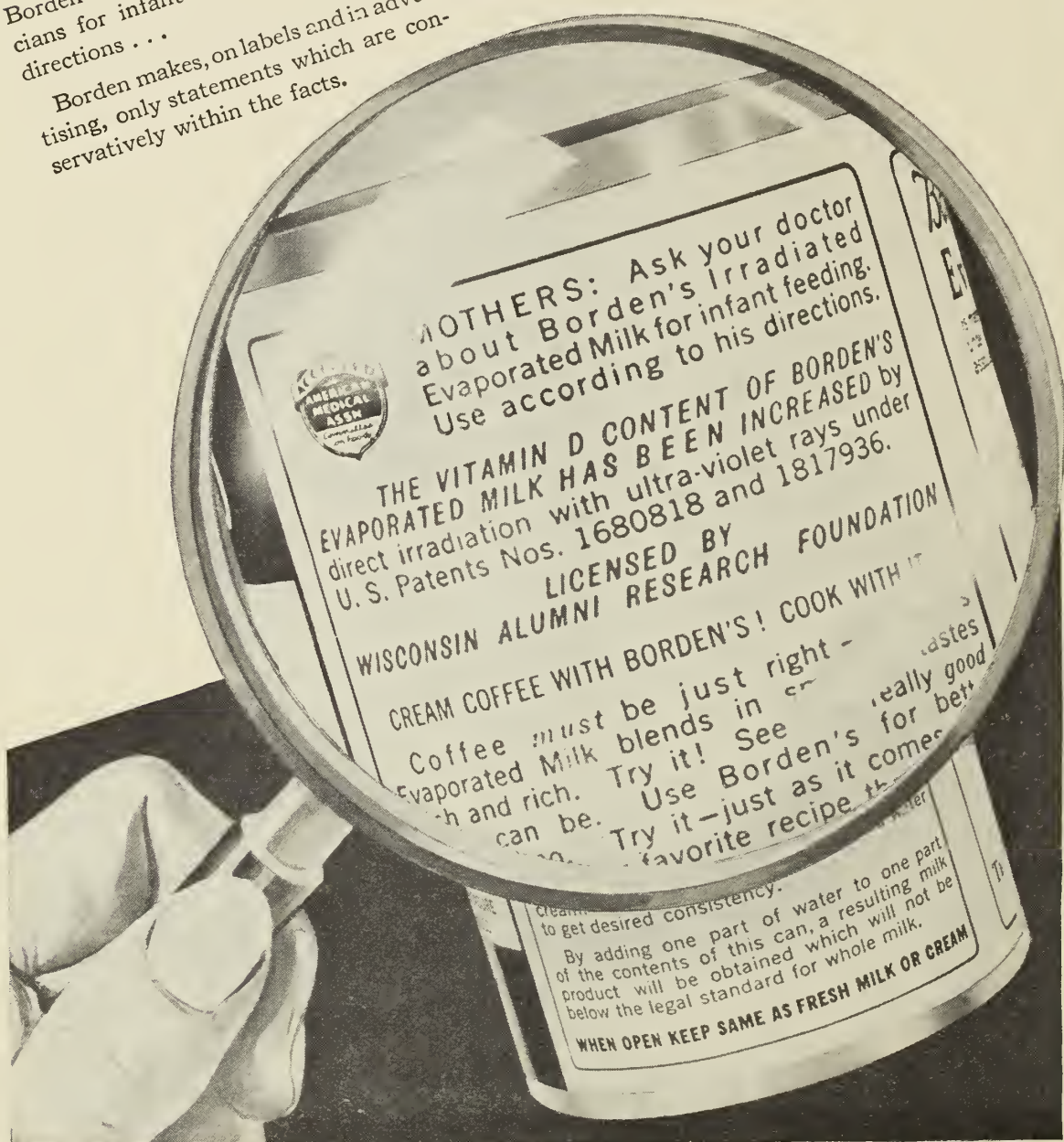
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EDITORIAL

THE SOUTH CAROLINA MEDICAL AS- SOCIATION AND ITS PLANS FOR THE NEW YEAR

1934 goes out as a fairly successful year in organized medicine, not only in this state but throughout the United States. The roll of membership has been kept up to a satisfactory normal, all things considered. The scientific meetings throughout the State have been exceptionally good and the attendance large everywhere. We will shortly begin our eighty-seventh year and The Journal will soon be thirty years old. It has had some difficulties, of course, and they have been rather trying during the depression years, along with all other scientific publications. The Journal exists chiefly on its advertising and always has. The receipts from this source have fallen off greatly, as is well known, but the Journal has kept a bold front. The quality of its service has not been changed. It has been necessary

to reduce the size occasionally of an issue, but there has been no curtailment in the publication of the best papers submitted. For the most part they have been of a high order and constantly improving. Quite a number have been abstracted at length in the most influential journals of the world. The Journal has never attempted to be a money making enterprise but has endeavored to keep up the same high standard as that of other small state Journals. It will go into the New Year in an optimistic attitude. During 1934, owing to improved financial conditions, membership dues have increased, and the year will close without so many delinquents as in the recent past.

There has been an unusual degree of harmony in Association circles during the year. President Egleston has rendered an invaluable service to the profession and to the State in his militant championship of public health. Everywhere he has been Dr. Egleston has emphasized the fact that the South Carolina Medical As-

sociation is the State Board of Health and that the Association has a profound obligation resting upon it in this regard.

The President Elect, Dr. S. E. Harmon, has been very active in presenting to the profession imminent medical economics problems. As a member of the Council for some sixteen years and Chairman of that body for most of the time, Dr. Harmon had an unusual opportunity to study this phase of the practice of medicine. He, therefore, is in a strategic position to advise with the constituent societies throughout the State along this line. Now for some future plans. First of all, the Association will meet at Florence, April 23, 24, 25. We have never failed to have a wonderful meeting at Florence. It is a great medical center, and with the building of a magnificent hospital our interest has been heightened in the medical atmosphere there. The program for the meeting is well under way. The invited guests have been selected and they are amongst the most distinguished representatives of our profession in the United States.

The Scientific Committee in charge of the program consists of Dr. W. R. Mead, Florence, Chairman, Dr. James McLeod, Dr. J. P. Price, all of Florence, and the President and the Secretary of the Association. It will be the aim of the Scientific Committee to make the Florence meeting an eminently practical one for the general practitioner. It is expected that the scientific exhibits so admirably conducted at the Charleston meeting will be enlarged upon and there will be an increase also in the commercial exhibits. The committee feels that accommodations for taking care of the members of the Association at Florence will be adequate in every particular. Titles of papers may be submitted to the committee or to the State Secretary. In the plan for 1935, as has been intimated, medical economics in all of its phases will have due consideration on the part of South Carolina Medical Association. We believe, though, that any single state acting alone in this regard is practically powerless to bring about radical results. This assertion, however, in no sense is intended to convey the idea that every unit of the American Medical Association should not become profound students of passing events and therefore be in a position

to act in the full knowledge of what is best for their individual membership when called upon to do so. As stated in a recent editorial, we have full confidence in the leadership of the American Medical Association at this particular time and we wish to quote the remarks of Dr. W. J. Mayo before his County Society meeting at Rochester, Minnesota, on November 7, 1934, following the remarks of Mr. George B. Larson, Field Representative of the Minnesota State Medical Association: "As I look back on somewhat more than fifty years in the practice of medicine, I recall that my father, a practitioner of medicine, taught my brother and me what relationship we as members of a great profession should hold to the county and state medical societies and to the American Medical Association. He said, 'Where the American Medical Association leads, I follow, because I take it that its officers have done more investigating as to what is right and what should be done in the circumstances connected with it than I have done.' That is equally true of our state and county medical societies. Our county societies, of which the Olmsted-Houston-Fillmore-Dodge County Medical Society is a fine example, are a great improvement over the old time county societies, because, no longer obliged to contend with horse and buggy and muddy roads which made frequent meetings impossible, the doctors have become acquainted with each other and can act as a unit. Mr. Larson has stressed tonight the necessity for the profession to do its best in this time of depression to perform its duty to the patient, regardless of whether or not it is satisfied with the rules and regulations that governmental commissions, more or less political in origin, have imposed upon us."

POST GRADUATE OBSTETRICAL COURSES FOR SOUTH CAROLINA DOCTORS IN 1935

An inkling of our plans was given out at the Charleston meeting, but only in the last few weeks have we been able to feel assured that they could be carried out. It is gratifying therefore to be able to announce the inauguration of *Post Graduate Lectures in Obstetrics*

to begin April 15, 1935, and to be carried on a greater part of the year. These courses will be under the direct supervision of the State Medical Association. We have secured, we believe, the ablest teacher in this country, Dr. J. R. McCord, Professor of Obstetrics at Emory University, Atlanta, Georgia. There will be no financial obligations on the part of either the Association or the members who attend the lectures. A tentative schedule has been agreed upon. These lectures will be held at the following places; Anderson, April 15; Spartanburg, June 24; Columbia, July 8; Orangeburg, July 22; Florence, August 12; Kingstree, August 26; and Charleston, September 9. The courses will start on Monday and run through the week beginning at two o'clock in the afternoons. An outline is as follows:

Monday. The Mechanism and Management of Normal Labor.

Tuesday. The Toxemias of Pregnancy and Chronic Nephritis.

Wednesday. Puerperal Sepsis and Syphilis and Pregnancy.

Thursday. Occipito-posterior Presentation, Breech Presentation, Forceps and Versions.

Friday. Abortions, Placenta Previa and Accidental Separation of the Placenta.

It is expected that the doctors from surrounding counties will attend these lectures and as time goes on other places than these named may be included in the itinerary. Just a glance at the scope of these lectures indicates their supreme importance. Dr. McCord has visited numerous states and in no instance has he failed to be heard by large audiences. A little later county medical societies will be requested to assist in working out the details as outlined above.

The real purpose of these lectures is that the South Carolina Medical Association intends now to add the full force of its influence in the direction of lowering the unenviable maternal mortality record in our state. We are beginning, therefore, with the members of the medical profession, for in the last analysis it is to their combined leadership and initiative that we must look for ultimate results.

As time goes on, of course, we will enlist

the support of every organization in the state in position to help in the campaign. We feel confident of success.

LEGISLATIVE PROBLEMS

The last legislature was rather a quiet one for the medical profession in South Carolina, but the General Assembly to convene in January may at any moment have bills presented of unusual significance to the medical men and the public health of the State.

There seems to be little doubt that a Workman's Compensation Bill will be presented with renewed force and with much greater possibility of enactment into law than has hitherto been the case. Such a law profoundly affects the practicing physician, and it behooves the entire membership of the Association to be on the alert to see that a proper place may be given to the medical man in the bill.

Another phase of compensation that should have the immediate attention of the Legislature is that of the injuries resulting from automobile accidents. These are mounting to staggering proportions all over the country. Any hour of the day or night each and every doctor, regardless of where he lives, may be called upon to render assistance to these injured people. At the present time in South Carolina at least the burden falls very heavily on the doctor, so far as his compensation is concerned, and the same may be said to be true of all the general hospitals in the State. Many of these bills are never paid, and under our laws there is little provision made for the protection of the doctor or the hospital. There are many plans proposed but it seems reasonable that some form of compulsory liability insurance would take care of many features of such cases.

THE WOMAN'S AUXILIARY

Elsewhere in this issue we are glad to give space to the publication of the Constitution and By-Laws of the Woman's Auxiliary to the South Carolina Medical Association. This organization has long since become an inspiring associate of the South Carolina Medical Association. The work has been carried on persistently, enthusiastically, and helpfully. The

Woman's Auxiliary has really now become an integral part of organized medicine from the A. M. A. on down to the smallest units throughout the United States. It will be noted with interest that the Woman's Auxiliary in our state, as set apart in their Constitution and By-Laws, has for one of its major objects the accumulation of a student loan fund; the main idea being to aid worthy sons of worthy physicians in securing their medical training where they are unable otherwise to do so. One of the finest objects of the Woman's Auxiliary in this state and in some other states is the collection and ultimate publication of the history of medicine as exemplified in the lives of individual members of the medical profession who have passed away. This work is going on quietly but thoroughly and has been for a long time, though little has been said about it as yet. We bespeak the cooperation of the medical profession in South Carolina not only in the Student Loan Fund proposition but in the matter

of historical records. One of the finest features of the Woman's Auxiliary is that of the social relationships encouraged by the activities of this organization. Hitherto the doctor's wife has had little opportunity to meet the neighbor doctor's wife except through the larger women's organizations with other objects in view, and this leads to another thought highly important; with the spread of the Woman's Auxiliary Society throughout the country has come to an enlightened program of preventive medicine information to them. The opportunity and the privilege of extending this information to the large sister societies is enormous and effective. In other words, the mighty power of the great women's organizations of this country if turned fully in the direction of preventive medicine may be of untold benefit to oncoming generations. No organization is in a position to interpret the basic principles of preventive medicine to these larger units so effectively as the Woman's Auxiliary.

RESOLUTIONS ON DEATH OF DR. PINCKNEY V. MIKELL, COLUMBIA, S. C.

It was with deep regret that the members of the Columbia Medical Society learned of the sudden and tragic death of one of its best known and valued members, Dr. Pinckney Venning Mikell.

Doctor Mikell was born on Edisto Island, son of I. Jenkins and Lucilla Venning Mikell. He received an A. B. degree from the University of S. C. and his Medical Degree from the Medical College of S. C. at Charleston, in 1900. He settled in Columbia and was engaged in general practice of medicine for several years after which he specialized in the diseases of the eye, ear, nose and throat. During his thirty-four years of practice in Columbia, Doctor Mikell was continuously a progressive and outstanding leader, not only in medical affairs, but in any civic organization that worked for the betterment of his fellow man. His civic activities were wide and varied. He was a member of the Columbia Rotary Club; a past president of the Y. M. C. A., past president of the Travelers Aid Society; a 32nd degree Mason, an active member of the Alpha Tau Omega fraternity, a talented musician and a leader in all things musical in his community. He was a devoted member of the First Presbyterian church. A man of deep religious convictions, he was always an earnest worker in the various activities of the church.

As a physician, he ranked as a leader. Here again his work was not confined to his speciality alone, for he was always actively interested in everything that tended to enhance the practice of medicine in

all lines. He was a member of the Columbia Medical Society for over thirty years. During this time he presented many scientific papers, served on important committees, and was honored with the presidency. He never refused charity when needed, as witnessed by his years of free service at the Children's Clinic. He was always interested in the advancement and efficiency of the hospitals in Columbia and for several years, served as chief of the staff at the Columbia Hospital. He was a member of the American Medical Association, the American College of Surgeons and a graduate of the American Board of Otolaryngology, and attended frequently the national meetings of his speciality contributing case reports and papers.

Doctor Mikell was married to Miss Annie Sloan in 1901. She died in 1932. January 1934 he married Miss Estelle Barker of Valdosta, Georgia. He is survived by Mrs. Mikell, two daughters, Misses Alice Ann and Lucilla Venning Mikell of Columbia. Dr. I. Jenkins Mikell of Columbia and Dr. John Sloan Mikell of the Presbyterian Hospital in New York City.

Doctor Mikell possessed to a rare degree the charm and idealism of the old school even in the practice of a modern specialty. Endowed with a vigorous personality, he had every expectation of many years of health and medical productiveness when he was killed in an automobile accident, July 31, 1934.

Therefore, be it resolved:

1. That the Columbia Medical Society feels that in Doctor Mikell's passing they have lost one of

(Continued on Page 251)

ORIGINAL ARTICLES

Acute Nephritis in Children

By R. M. Pollitzer, M.D., Greenville, S. C.

Introduction:

It is my purpose in this paper to call to your attention some of the tremendous advances that have been made within recent years in the conquest of acute nephritis and to present briefly for your consideration five case reports, illustrative of the modern method of treatment.

Etiology of Nephritis:

In a series of 103 children who had Acute Nephritis, and were treated by Robt. Southby(2), it was found that etiologically they fell into 2 groups. In the first there were 27, or 26 per cent, in whom no predisposing factor could be found. In the second group there were many and varied causes apparently operative. Twenty-eight per cent had tonsilitis; 16 per cent impetigo; 11 per cent pneumonia, 2 per cent carious teeth, others mumps, scarlet fever, glandular fever, rubella, malaria, sinus disease, etc. He found that the incidence of scarlet fever has been over-emphasized. Aldrich, in his series, found only 15 per cent due to scarlet fever. In my own small experience, sore throat, tonsilitis, cervical adenitis, impetigo, furunculosis, and carious teeth have been the exciting factors.

While it is common knowledge that acute nephritis is a very frequent malady in childhood, it is rather difficult to give the exact incidence. But it is easier to assemble mortality statistics. Lyttle and Rosenberg(2), in a large series, found the death rate to be 11 per cent.

Although many complex and rather confusing classifications of acute nephritis have been proposed, the matter can be greatly simplified, and in its essence is not at all difficult. Hugh Dyer(3), says that, as in the beginning all cases are acute, therefore, except for prognosis, the distinction of acute and chronic is of no

moment. If one recalls that the glomerulus contains the capillaries, and that the tubules deal with the salt and water excretion from the blood, the symptoms will be better understood. The presence of blood in the urine means disability on the part of the glomerulus, which is a nest of capillaries, while edema signifies tubular pathology. As a matter of fact, usually in nephritis, both are soon involved. Where there is no hematuria, but a chronic condition with much edema, albuminuria without increase in blood pressure or nitrogen retention, we speak of that disease as nephrosis. This peculiar condition is not under discussion herein.

In a rather recent paper of Aldrich(4), he reviews his work for a nine year period and analyzes a series of 186 children. Of these 129, or 70 per cent, had acute post infectious hemorrhagic nephritis. This is called, by some, acute diffuse nephritis. Because of its frequency, and also because it is so amenable to treatment, that is the type of acute nephritis chosen for this paper. While, very naturally, children with this type of nephritis may differ to a marked degree in the severity of this disease, yet the salient points in symptomatology are strikingly similar. For that reason the diagnosis should be extremely easy. As a matter of fact, the history and inspection usually suggest to the physician the nature of the malady, even before the urinalysis or the complete physical examination.

In brief, as a rule, one is told that the child has been drowsy, has had a headache, perhaps has gained rapidly in weight, looks pale, and is puffy about the face, or has swelling also in the legs. Then, too, some one has noticed that little urine is being passed and that it is colored reddish brown and is smoky. That is enough to at once call for a urinalysis and a physical examination.

The urine as a rule has a fair amount—or even a large amount of albumin. Generally it is dark and smoky so that one suspects blood.

*Read before the South Carolina Medical Association, Charleston, S. C., May 3, 1934.

This is verified under the microscope, by the finding of large numbers of erythrocytes. And, if not too numerous, or the urine be diluted, many hyaline and granular casts are made out. The total urine put out in 24 hours is greatly decreased. At times there are but a few ounces, and rarely there is complete suppression. Nearly always the leucocytes are somewhat increased along with a polymorphonucleosis; but there is nothing characteristic about the blood findings. Blood chemistry shows in many instances an increase in non-protein nitrogen and at times a sharp increase not only of urea but creatinin too. This may be of serious import. In most patients there is some increase in the blood pressure, and at times this is extremely high. In the uremic cases it is highest. Aldrich states that the blood pressure reading is of more help than the blood chemistry. Very early there is pallor, which is out of proportion to the anaemia. The skin not only is pale, but tense and glossy. The increase in weight is proven by the scales and is apparent. Often there is headache early, along with nausea, and quite often vomiting is one of the first signs. The edema is not extreme, but is noticeable and affects the face mostly, though soon the legs, the abdomen, and other cavities are affected. Usually there is a moderate increase in the temperature.

The diagnosis of nephritis is made by the history, the physical examination, and the urinalysis. In most instances this is a disease easy of recognition, but one that needs some thought as to what therapeutic procedures are indicated. It might be said that the older methods are passe. The newer investigations on edema and uremia have thrown them into the discard.

As regards the prognosis, it can be stated that most children recover, provided the injury is slight or the treatment correct. A few die, and an uncertain number drift into the chronic type.

Treatment:

Before undertaking the treatment of a case of acute nephritis, one should have a clear understanding of the true state of affairs, and exactly how this has come about. Further, he should realize what he wants to accomplish and the best way to set about this. Of course,

no one can replace the injured glomeruli and tubules, therefore a radical cure is out of the question. But it is possible to relieve the load on the kidneys, to lessen the edema, and to combat the uremia. Uremia is often present and most serious. Most writers have long thought the treatment of uremia to be inadequate. Forchheimer(5) stated over 20 years ago that where uremia supervened, the routine treatment for nephritis must be abandoned. Long ago vonLeube, in his text book, pointed out that where edema was treated too vigorously, uremia was induced. Quite some years back, Martin Fisher(6), in his book on edema, advanced the theory that edema occurred because something had happened to the cell to make it hold an excess of water bound to its colloid substance. In 1925, Aldrich(7), called attention to the fact that several nephritics had died promptly from uremia, where the fluid intake had been sharply decreased. He proposed the following hypothesis: "Toxins are elaborated in the acute infectious processes, that so affect the tissue colloids, that their affinity for water is increased, resulting in edema, and that the elimination of fluids takes place when the tissues lose the power to hold excessive water because of lessened intoxication . . . It is possible that fluid restriction may interfere with this function, and increase the intoxication."

There can be no question but that uremia, be it ever so slight, requires prompt treatment. If uremia or the cerebral manifestations of nephritis are induced by edema of the brain, due to intoxication, as is believed by Blackfan, Aldrich, Elwyn, and others, it surely would be the part of wisdom to remove or dilute the toxins. It is claimed that the introduction of water into the body does dilute the toxins sufficiently enough to hasten restoration. This has been well substantiated. Aldrich, 1930, gives as his routine treatment for uremia, the administration of one to five ounces of a saturated solution of magnesium sulphate, and the forcing of fluids by mouth. Contrary to one's expectations, the administration of Epsom Salts does not act as a purgative so long as edema is present. Further, as has been shown many times, it does reduce blood pressure. But, of course, where a person is frankly uremic, or time is

of value, the drug must be given by the vein. Usually a 2 per cent solution is used. Aldrich claims that the blood pressure, if taken in the other arm, will be noted to be falling during the injected. Several hundred c.c. may be used. Occasionally we use a stronger solution and employ a smaller volume. At times I have given Mag. Sulphate in 50 per cent concentration intra-muscularly. Blackfan and the late Dr. Dowman of Atlanta did much to popularize the use of Mag. Sulph. as a blood pressure reducer in increased intra-cranial pressure. Regardless of preconceived opinions, water is an excellent diuretic, and while on superficial thinking, it seems irrational in kidney edema to put more water into the body, yet experience has shown that unquestionably this is the best procedure. Over and over again I have seen nephritics who were very edematous, on having water forced, put out astonishingly large amounts of urine, lose weight, and soon look different, as the edema disappeared. It is most gratifying to see a child who a few days previous was comatose or having convulsions be bright and talkative again. In the severe cases of nephritis, or where uremia has set in, little food is indicated. But I have not found that there is any objection in the mild cases or where there is the desire to eat, to give a general soft diet. That is, a pint to a quart of milk can be given. An egg a day apparently does no harm. Water in amounts from 1 to 5 quarts is essential. Giving or omitting salt seems to make little difference. Few drugs are necessary. Some of my patients were given comp. jalap. As a diuretic, I have at times given glucose solutions intra-venously, and in some few cases digitalis by mouth. But as a rule drastic diuretics are contra-indicated, as the kidney already has too much work. I know of nothing to lessen the hematuria, except that as the congestion, secondary to the infection, lessens or the further we get from the insult, nature brings about restoration and the bleeding lessens. Further, there is no procedure that will decrease the albuminuria or the number of casts. In brief, the way to treat acute nephritis is to take one's mind off the kidneys and consider the patient. Nephritis is a general disease, and in the cases under consideration, it is merely a manifestation of

kidney damage and its consequences by some toxin. Many times limiting water, using sweat baths, and giving drastic diuretics have done much harm, and most of us, if honest or blessed with good memories, will recall instances where nephritics steadily grew worse when treated too energetically by water starvation.

Following the nephritis, or at times during its course, the offending tonsils or teeth should be removed. In some of my patients albuminuria did not cease until teeth were extracted. In others the tonsils had to be removed, and in two others recovery was delayed until, an impetigo disappeared.

The following cases are reported as illustrative of typical Acute Nephritis and as instances where the modern treatment was carried out.

Five Case Reports:

Case 1:—W. L. P. White: Male, aged 12 yrs. admitted to hospital June 25, '31. He had severe headache and could not see, vomited several times. The day previous had a general convulsion, followed by more. Became ill on 19th. Since then much worse.

Physical Examination: Large, pale, restless youth. Face extremely edematous. Respiration irregular. In tonic spasm. On day of entrance 7 convulsions. B. P. June 26th, 165/120.

Urine: Much albumin, many hyaline and granular casts, and much blood. Blood count 16,850 leucocytes, with 81 per cent polymorphs. On June 26 the blood contained 75 mg. of non prot. nitrogen and 1.9 creatinin. The WR was negative. By June 28 consciousness clearer. B. P. 120/80, less edema, voiding twice as much as fluid intake. No headache. Not blind.

Treatment: Given Sod. Bromide, chloral, and digifoline, without result. Next day 10 cc 10 per cent sol. Mag. Sulph. intravenously. This continued twice daily for 4 days. Omitted as edema left and B. P. came down. Also mental condition normal. Put on 1 oz. 50 per cent sol. Mag. Sulph. by mouth. For the first two days, to produce diuresis, given two injections of 20 cc of 10 per cent sol. of glucose intravenously. Fluid intake restricted at first to one pint daily. Soon increased to 1 qt. Later fluids forced. Early spinal puncture considered,—postponed, and, because of improvement, not done. When consciousness returned allowed milk, egg, cereals, sugar, bread, orange juice. Free from edema. Seen later at home. Perfectly well in every way except for very small amount of albumin in urine.

Case 2: R. B., white male, became ill Aug. 4, '31. Visited office on 7th. Large boy of 102 lbs. Face edematous, heart forcible. Abdomen contained fluid. Tonsils out. Recently he has had acute pharyngitis.

B. P. 150/110. He had a headache and was nauseated. The urine had albumin, blood and casts. He was put to bed and kept there 3 weeks. Put on diet of milk, cereal, egg, and from 3 to 4 quarts water daily. He was given daily 2 tablespoons of mag. sulphate. As the edema decreased, the bowel evacuations increased in frequency and amount. The greater the water intake the more the edema lessened, and the diuresis increased. On Aug. 14 he was edema free. On the 17th there was no albuminuria, and the B. P. was 115/70. Recovery was complete.

Case 3: Wm. R., a white male of 11 years, became ill Aug. 9, '31. Put to bed next day. Very edematous. Urine had much albumin and casts. Blood easily visible to naked eye. He had severe headache. Put at once on large amount water and Epsom salts. By the 17th headache and edema gone. On 25th B. P. still 145/75. On 31st urine showed very little albumin. Drinking 3 to 5 quarts water daily, with 1 quart milk, and soft solid diet. Salts continued. Bowels moved 3 to 4 times daily. On Sept. 4th much better, begging to get up. No edema. No longer blood in urine, and only trace albumin. Still rather pale. On Sept. 19 B. P. 110/68; a marked reduction. While drinking large quantities the output increased till it equaled the intake, even though he was daily having several watery movements.

Case 4: Colored female, aged 7 years, admitted to Greenville Hospital Nov. 30, '31. Discharged greatly improved Dec. 18, '31. Several days before entrance swelling of abdomen, legs, and face noted. She had severe headache and vomited several times. On 30th had a convulsion, followed by others. Physical examination showed fairly well nourished girl with marked edema so that eye-lids were closed. She seemed very ill, was somnolent, but could be roused and made to answer "Yes" or "No." She slept almost continuously. Urine had albumin 4 plus, casts 2 plus, and blood 3 plus. On discharge it was perfectly clear. Blood counts 16,900 leucocytes with polymorphs 84 per cent. Twelve days later it had dropped to 9,550, and polymorphs 41 per cent. B. P. on Dec. 3, after some improvement, 118/86.

Treatment: During convulsion, 2 c. c. of Mag. Sulph. 50 per cent given intra-muscularly. Fluids forced. Mag. Sulph. sat. sol. 1 oz., given by mouth. Daily intake of fluids (milk and water mostly) ranged from 500 to 1690 c.c. (over 3 1-2 pints). With improvement diet enlarged. Three days after admission edema free as to face. Dec. 6 marked improvement. The scales showed she was losing much weight. From a dull apathetic child she became responsive, and soon was talkative, and alert. The nurses and internes now stopped to hear her chatter. On discharge apparently well.

Case 5: G. E., white female, aged 10 years. A week ago this girl became irritable and developed edema about face. She has voided small amounts of urine. On the morning of Oct. 18, 1933 had a con-

vulsion, sent to hospital, on the way had another convulsion.

Physical Examination: Well developed girl, who is edematous. She has a severe headache. Highly nervous. Temperature 101. Throat injected. Cervical nodes enlarged.

Urine: Albumin 4 plus, casts numerous, and blood 2 plus. Output in first 24 hours only 2 1-2 oz. Intake 24 oz. Blood count on Oct. 18, total leucocytes 17,550, with polymorphs 89 per cent. The blood contained 32 mg. of N. P. N. Weight 61 1-2 lbs. Blood pressure on admission 120/75. On Oct. 25 B. P. 90/50.

Treatment: Soft diet, 2 per cent sol. mag. sulph. intravenously on first day, and repeated once. Sat. sol. mag. sulph. by mouth daily 1 to 2 oz. Glucose 10 per cent sol., 20 c.c. intravenously first day. Codeine gr. 1-4 by hypo once. Water forced, 3 to 5 quarts daily. The edema soon decreased. On Oct. 22 no headache, and no drowsiness. Urine almost cleared. Seen recently. Complete recovery.

Conclusion:

The treatment today for Acute Nephritis is totally different from the older methods. It is based on opposite conceptions. In the hands of Dr. C. A. Aldrich (8), in a large series of cases, it has proven very successful. In my own work, with a small group of very ill children, the results have been gratifying. There are but three explanations possible. One might argue that the treatment did no good and the patients would have recovered anyhow. Or, of course, it might have been possible for some harm to have been produced. The records fail to show this. And, lastly, one might conclude that the treatment was beneficial. If this is the correct solution, then the method is worthy of further trial.

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DISCUSSION

Dr. Julian P. Price, Florence:

If Dr. Pollitzer had read this excellent paper several years ago, he would have been considered most radical. The idea of giving a child who is edematous more fluids and the idea of not worrying about the diet in nephritis are quite new, and yet they are now being accepted as the standard treatment.

There are two points I should like to stress in the treatment. The first is the focus of infection. Very frequently these children develop nephritis, as Dr. Pollitzer pointed out, after some infection. It is certainly important to see that the foci are removed, especially diseased tonsils and teeth. The second point is the importance of absolute rest in bed. I have seen patients, and I am sure you have, in whom a trip in an automobile to see a doctor in consultation has caused a relapse of their nephritis. I recall a child with hemorrhagic nephritis, apparently doing well, who was brought sixty miles to see a consultant. There was an immediate exacerbation of her condition, and recovery was delayed for two weeks.

Dr. J. I. Waring, Charleston:

I should like to ask Dr. Pollitzer a question in regard to the proof that tonsils are frequently the source of acute nephritis. I know that in a great many conditions where we think some focal infection is responsible, we say the tonsils ought to come out, whether or not they show any definite infection and whether or not there has been any previous infection, as evidenced by sore throat. I wonder if there is any series of cases or if there are any figures to show the comparative incidence of acute nephritis in children with or without tonsils? I have the feeling that we blame the tonsils a good many times when they are hardly responsible.

Dr. C. Williams Bailey, Spartanburg:

I should like to ask one question, also—if Dr. Pollitzer has any cases which do not respond to

increased water? I can remember one case, rather recently, in which water was forced and the edema got worse, regardless of the magnesium sulphate and other measures. So in that case I restricted water, and the edema went down, and then gave water later on. I believe there is an unknown factor in some of these cases that prevents things from working out so well.

Dr. Pollitzer, closing the discussion:

Gentlemen, I wish to thank you for the discussion. I hope that the remarks, along with the paper, have helped to bring some of the newer ideas to you as to the treatment of nephritis. I do not claim that the treatment is original with me, nor that it is perfect, but merely that it has some value.

First I want to stress what Dr. Price spoke of—the importance of finding the focus of infection, if you can. And it can be done in most patients. Sometimes you can not find it, and then prophylaxis is, of course, not possible. In a certain percentage of cases you do not know why they develop nephritis, and never do find out. But when you can, as soon as the acute attack subsides you ought to have the focus of infection removed. We now know that scarlet fever is not so important as an etiologic agent. Pharyngitis and tonsillitis are more important. Even skin infections are common causes.

As to what Dr. Waring said, I have seen a good many children with big tonsils who never developed nephritis; and I have seen children with small tonsils, that did not look bad, who did develop nephritis. I make it a rule to ask for a specimen of urine in every case of tonsillitis, and usually I get it. I myself examine it for albumin and sugar, at least. I have been surprised at the large percentage of cases that have albuminuria—I do not say nephritis, but albuminuria. Some of them have red blood cells, and some, of course, go into nephritis. Pharyngitis is perhaps more common than tonsillitis. The investigative work Dr. Waring asked about has been done by Kaiser, who reviewed a few thousand cases (quite a large series of cases), which I think failed to show anything very definite.

Dr. Bailey spoke about a case of edema, with nephritis, in which the treatment did no good. I reported these five cases as good cases to report; that is, as typical illustrations of the modern treatment. I have had no deaths. I have had some cases that were unsatisfactory, some in whom forcing water seemed to do no good. This treatment is only for acute diffuse (hemorrhagic) nephritis, and I do not believe for one moment it will work in every case. But Aldrich, in a period of nine years, had remarkable results; and I, in a few years, have had very satisfactory results.

OBSTETRICS AND GYNECOLOGY

J. D. GUESS, M.D., GREENVILLE, S. C.

PRESENT STATUS OF TREATMENT OF ECLAMPSIA

No paper read before the last meeting of the South Carolina Medical Association exceeded in interest and practical value, the address of Dr. J. R. McCord, professor of Obstetrics at Emory University Medical School in Atlanta. It is to be hoped that every doctor in the state who practices midwifery has read carefully the report of this address, which was printed in the Journal recently.

The speaker stressed the fact that the treatment of eclampsia as outlined by him was not original or new. However, the value of the method, he stated, was proven conclusively by the results that have followed its use in the department of obstetrics at Grady Hospital.

The treatment described is of the so-called middle line type, being neither radical nor wholly conservative. In the beginning of the treatment, the pregnancy is entirely disregarded and the eclampsia is treated as if there were no relationship between it and the existing pregnancy. After the convulsions have been controlled, labor is induced by rupture of the membranes, together with administration of castor oil and quinine, if necessary. The period of gestation is totally disregarded, it being felt that the health and life of the mother far outweigh the hazardous chances of securing a live baby by prolongation of pregnancy in one who has had eclampsia.

Dr. McCord's treatment of eclampsia consists in the administration of morphia, and magnesium sulphate, intravenously or intramuscularly, and of glucose intravenously.

Although it is obvious that the safest place to treat eclampsia is in a good hospital, and although, most South Carolina mothers are within reasonable distance of a hospital, some there are who can not be so treated. The treatment described by Dr. McCord can be conducted by

the average doctor in the home, and in every case treatment should be begun in the home. The mortality increases rapidly with each successive convulsion, so that every effort should be made to begin treatment at the earliest possible moment in the hope of controlling the convulsions.

The mode of treatment described by Dr. McCord is far different from the old method of manual dilatation and tearing of the cervix followed by podalic version and extraction of the baby, preceded by the administration of chloroform inhalations to control the convulsions, and accompanied by chloroform or ether anesthesia, purgation and bleeding. It is less arduous for the doctor, it will result in more live babies and in more live mothers. Further, it leaves less pelvic invalids in its wake.

It also differs, momentarily, from a program of indiscriminate cesarean sections, during convulsions, in an effort to hastily empty the uterus, and Dr. McCord's results are as good as results reported from any clinics where treatment by cesarean section prevails, and they are far better than statistics reported by most so-called radical obstetricians.

The treatment of eclampsia appears to be getting more and more nearly standardized, and although there is still much variance as to certain details of the treatment, some using glucose, some using magnesium sulphate, and some using both, some using sodium amytal or other barbiturates as sedatives, some using bromides and chloral, still it is true that medical treatment of eclampsia is getting rapidly to be the vogue. In most clinics the pregnancy is given no consideration before the eclampsia is controlled. When this has been accomplished, then the mode of delivery receives attention as a distinct problem, governed by the same indications as would apply, had there been no convulsions.

SURGERY

WM. H. PRIOLEAU, M.D., F.A.C.S., CHARLESTON, S. C.

"THE IMMEDIATE TREATMENT OF COMPOUND INJURIES"

In our maze of recent knowledge, it is very difficult to retain a proper perspective. So often are we trying to understand or master some highly technical procedure applicable in an occasional case, that we become entirely oblivious of some of the simple underlying principles of medicine, which if practiced would serve us in good stead almost daily. Such is the case in the care of compound injuries. Here too often we see the ritualistic application of some well advertised and propagandized brilliant colored antiseptic to the exclusion of the use of common sense methods in caring for the injured tissue.

We shall limit this discussion to the treatment of the wound itself, and pass over the arrest of haemorrhage, treatment of shock, and a thorough examination, the importance of all of which needs no emphasis.

The problem at hand is to avoid further contamination and if possible to convert the dirty wound into a clean one. Our aim should be to accomplish cleanliness without causing tissue injury. In so doing it must be borne in mind that substances which have an antiseptic effect on bacteria also have a devitalizing effect upon tissue cells. Also that necrotic tissue, whatever its cause, predisposes to infection. Upon these principles Dr. Summer L. Koch advocates certain procedures in the treatment of compound injuries. (Bulletin—American College of Surgeons—Vol. XVIII:125, Sept. 1934).

The wound is covered with sterile gauze. The surrounding area is thoroughly cleansed with soap and water. Finally the gauze is removed and the wound itself cleansed in a similar manner. Sterile linen and gloved hands are used throughout the procedure. Devitalized tissue is excised, but care is taken not to injure sound

tissue. No antiseptic solutions such as alcohol, mercurochrome, or iodine are used in the open wound or around it. Such cleansing with soap and water is generally all that is necessary to convert a contaminated wound into a clean wound. In such a case the wound may be closed and healing per primam expected. However if there is any doubt about whether a satisfactory cleansing has been accomplished, the wound may be packed open with a non irritating substance such as vaseline gauze, and closed after 24 hours. This will not preclude a per primam healing.

Editor's Note: The editor heartily endorses the foregoing views and adheres to them quite strictly in practice. Soap and water are the most effective cleansing agents applicable to living tissue. If we obtain gross cleanliness, the natural defense mechanisms will almost invariably take care of any residual minor contamination. The same principle applies to the cleansing of the physicians hands. So often do we see him immerse them in some colored solution as if that would answer all requisites, whereas a few minutes with soap and water would accomplish ever so much more.

It must not be interpreted from the foregoing that the use of antiseptics are absolutely decried in surgical technique. To the contrary, it is quite definitely established that they are of great value in the preparation of the normal skin for operative procedures, though there is some doubt as to whether they do more harm than good when applied to tender mucous membranes and open wounds. The point to be emphasized is that they can not be substituted for soap and water. When used improperly they are inadequate as a cleansing agent and often harmful to living tissue. A satisfactory technique makes use of both agents in their proper places.

EYE, EAR, NOSE AND THROAT

J. F. TOWNSEND, M.D., F.A.C.S., CHARLESTON, S. C.

MENINGITIS

Symposium on Meningitis Secondary to Otitic or Sinus Infection, Drs. Neal, Jackson and Applebaum, *Annals of Otol., Rhin., and Laryn.*, September, 1934, page 658.

Spinal fluid—among other things:

Polymorpho nuclears predominating.

Chemical test—increase in albumen—globulin. Sugar decreases or disappears.

Bacteria—by culture.

Serous meningitis or meningitic sympathetic:

When an active infection, otitis media; sinusitis; occurs near the meninges without actually invading them with an infecting organism.

Spinal fluid "changes consist of increase with amount of fluid, which is usually hazy or cloudy, an increase in cells which may reach several thousand, with polymorphonuclears usually predominating; an increase in the albumen and globulin and normal sugar content. No organisms to smear or culture. It may recover or progress, that stage being only an early stage of true meningitis. Prompt and thorough eradication of the primary focus of infection is indicated."

"A cloudy spinal fluid without organism does not necessarily mean generalized meningitis. The cloudiness may be due to an effusion of cells into the spinal fluid the result of tissue reaction due to organisms on the outside of the dura. The hypopyon ulcer of the cornea furnishes an excellent analogy." (Dr. Dwyer, A. O., R. L., Sept., 1934).

Even more indicated is the sometimes serious results of neglect of a common cold and of the importance of early treatment of infection of ear, nose, throat and sinus.

The treatment, therefore, seems after study of a report of this case—to be removal of the primary focus that is self-evident, and spinal drainage.

There is no evidence that the more radical forms of drainage are more effective. Forced spinal drainage has been shown positive to be injurious.

The results of serums have been discouraging. In a scarlet fever case the anti-scarlet serum seemed effective. So they advised the continued use of serums, hoping to benefit.

Auto-serum vaccines have resulted in a cure in two cases, but in most cases the time is too short to admit of use of this measure.

Chemical agents—gentian violet, acriviolet, acriflavine, optichin intraspinally or otherwise are not advised, with the exception of optochin in pneumococcic meningitis.

The factors to be considered are the:

1. impossibility of completely eradicating the primary foci.

2. the continued presence of bacteria if (1) fails.

3. virulence of bacteria; if low, patient may recover regardless of the inefficiency of treatment.

4. resistance of patient—host vs bacteria. This was an analysis of 623 cases.

Bacteriology of Meningitis following Otitis Media and Related Infections—Anna D. Williams, M.D., *Annals of Otol., Rhin., & Laryn.*, Sept., 1934, p. 666.

Dr. Anna Williams found that in 597 cases 205 were direct stropococci, 214 were pneumococci and 11 were influenza bacilli. The remaining 60 were unclassified.

She pointed the value of determining by agglutinative test the type of strain or substance, for upon that factor depends the efficacy of the serum used in the treatment of meningitis due to pneumococci; the influenza bacilli, or to the streptococci. But she claims originality in showing that the potency of a serum for streptococci must contain potent antibodies against the endotoxins; thus to head off the invading tendency of the streptococci. Pathogenic streptococci produce two types of poisons called respectively exotoxins and endotoxins. The exotoxins stimulate the production of autobacterial substances effective against the invasion forms of these cocci; such a form is active in

meningitis. Here the serum must contain that type of antibody. The anti-exotoxic part of the serum probably has little effect on invasive streptococcal infection. It is the anti-bacterial serum; that is, the anti-endotoxic part from which we hope for the best results in these cases—and such a serum must be type specific.

We know how to manufacture such a type serum, but lack funds for applying the knowledge.

Pathways of Infection in Suppurative Meningitis. A. A. Eggston, M.D., *Annals of Otol., Rhin., & Laryn.*, Sept., 1934, p. 672.

These conclusions are mostly from deaths, so have the sure basis of post mortems. The cases number 177, of which 110 were meningitis and 53 brain abscess. 14 were both. In meningitis and brain abscess the infection enters through similar pathways.

The primary origin are foci of infection in the auditory apparatus, the paranasal sinuses and the bones of the skull; or through contiguous tissue to the leptomeninges and brain, or by skull fracture, operative or trauma. It also may arise from distant organs by bacterial emboli, bronchitis, pneumonia, or bronchiectasis. For it to spread by lymphatics is from anatomical reasons, questionable.

The avenues or pathways into the cranium are the perineural spaces of the auditory, vestibular and olfactory nerves; or by the venous circulation, from a damage to the endothelium of the veins causing clotting of the blood and septic thrombosis, which thrombi may spread against the circulation. The infection may go the cavernous sinus from the orbit, starting there as an orbital abscess or an orbital cellulitis. For it to enter by the perineural sheath is rare except in cases of infantile paralysis and epidemic meningococcus meningitis.

It may also arise from the ethmoid or sphenoidal sinuses in these cases there is an osteo-

myelitis, causing an osteoporosis which makes easy an entrance for infection. The ground having been prepared, suppuration or trauma initiates the process, they being the factor that sets it in motion. Trauma, accidental or operative is the chief cause, for infection per se is rarely a cause.

The auditory origin of infection is the most frequent; of 177 cases it caused meningitis in 90 and it caused brain abscess in 37.

The pathway is not known but,

1. labyrinthitis and
2. petrositis are the chief antecedents.
3. It may also arise from a lateral sinus or from
4. tributary veins of the lateral sinus, as the inferior and superior petrosal sinuses, from the
5. cavernous sinus, the
6. carotid and pterygoid plexuses and it may spread from any one of the above organs indirectly to the superficial veins of the antra dura and nervous system. Then from
7. the middle ear and mastoid by way of the tympanic cavity, labyrinth and petrous pyramid, to adjacent structure resulting in septic phlebitis of the superficial cerebral veins and acute purulent leptomeningitis. The dura is not as good a pathway as the leptomeningites. It can arise from the
8. aqueduct of cochlea from scala tympani, or from the
9. Ductus endolymphaticus to the posterior wall of the petrous pyramid, also from the
10. Perineural auditory sheath.

Petrositis may occur and result in involvement of entire tip of the petrous pyramid; involvement of Gasserian ganglion; involvement of Carotid canal; involvement of adjacent nerves; or the process may end by the petrous bone filling with granulation or fibrous tissue and new formed bone may result. Or pus may be absorbed or become inspissated or cheesy. Or a subdural abscess may form and rupture.

WOMAN'S AUXILIARY

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CONSTITUTION AND BY-LAWS OF THE WOMAN'S AUXILIARY TO THE MEDICAL ASSOCIATION OF SOUTH CAROLINA

CONSTITUTION

ARTICLE I—NAME

The name of this organization shall be the Woman's Auxiliary to the South Carolina Medical Association.

ARTICLE II—Object

The object of this Auxiliary shall be to extend the (1) aims of the medical profession, through the women members of families of physicians, to other organizations which look to advancement in health and education; (2) to assist in entertainment at State, District and County society meetings; (3) to promote acquaintanceship among doctors' families, that local unity and harmony may be increased; (4) to maintain an Educational Loan Fund for doctors' sons and daughters.

ARTICLE III—Membership

Section 1. The wife, mother, or daughter of a physician who is in good standing in the South Carolina Medical Association shall be eligible for membership in the Woman's Auxiliary, and on payment of such annual assessment as this Auxiliary shall decree, shall become a member of the Auxiliary. The widow of a physician is eligible for membership under the conditions stated above.

Sec. 2. If no County Auxiliary exists any eligible wife, mother, or daughter may become a member from the State at large by paying an annual fee of \$1.00 to the State Auxiliary.

Sec. 3. Women doctors may become honorary members without the right to vote.

ARTICLE IV—Officers

The officers of this Auxiliary shall be a President, a President-Elect, two Vice Presidents, a Recording Secretary, a Publicity Secretary, a Treasurer. (A Corresponding Secretary may be appointed by the President.)

ARTICLE V—Executive and Advisory Boards

(a) These officers, together with the County Presidents, District Councilors, and the Chairmen of State Committees and all Past-Presidents of the State Auxiliary shall constitute an Executive Board to conduct the business of this Auxiliary.

(b) A regular meeting of the Board shall be held immediately before and after each annual meeting of the organization. Mid year meeting to be called by the President or may be called upon written request of five members of the Board.

(c) Four members of the Board shall constitute a quorum.

(d) The Executive Board shall have all power and authority over the affairs of the organization during the interim between its meetings, excepting that of modifying any action taken by the organization, and provided that no debt or liability, except for current expenses, shall be incurred by the Board. The Board is authorized to transact business by mail if necessary.

ARTICLE VI—Elections

(a) The Officers of this Auxiliary shall be elected by ballot or acclamation in the House of Delegates on the morning before the Annual meeting.

(b) Only members of the Executive Board, and accredited delegates of County Auxiliaries in good standing shall have privilege of voting.

ARTICLE VII—Meetings

The meetings of the Woman's Auxiliary shall be held at the same time and place as the meetings of the State Medical Association. All members of County Auxiliaries have the privilege of attending the general meetings, but only accredited delegates may vote in the business of the meeting.

ARTICLE VIII—Delegates

Each County Auxiliary shall be entitled to send the President and one other delegate for each twenty (20) members or less, and one other delegate for each additional twenty (20) members.

ARTICLE IX—Dues

Each County Auxiliary shall pay annually dues to the State Auxiliary at the rate of fifty cents per capita; this to include the dues of twenty-five cents per capita to the State Auxiliary and twenty-five cents per capita to American Medical Association, and the dues of one dollar per County Organization to the Woman's Auxiliary to Southern Medical Association. The dues, payable January 1st, should be sent to the State Treasurer.

ARTICLE X—Amendments to Constitution

This Constitution may be amended at any regular meeting of the Auxiliary, provided written notice has been sent each County Auxiliary, not less than two months prior to said meeting.

BY-LAWS

I. Duties of Officers

The duties of the President, Vice Presidents, Secretary, Treasurer and Publicity Secretary shall be those which devolve upon such officers.

The duty of First Vice President shall be to act as Organization Chairman, and that of Second Vice President to act as Program Chairman.

II. District Councilors

Section 1. Each District Councilor shall be organizer for her District. She shall organize Auxiliaries where none exist. She shall make an annual report of her work and of the condition of the Auxiliary of each County in her District in a written report.

III. Committees

The President and Executive Board shall have power to create such committees as become necessary to promote the welfare of the Auxiliary, providing, in so far as practicable, committees to correspond with the national standing committees.

IV. Student Loan Fund Committee

The Woman's Auxiliary to the South Carolina Medical Association shall maintain an Educational Loan Fund for the use of deserving sons and daughters of doctors who are or have been members of the South Carolina Medical Association. The chairman to serve four years; the co-chairman to serve with her for four years.

V. Meetings

All meetings of the Auxiliary and the Executive Board shall be conducted according to the regular order of business and parliamentary laws which usually govern such meetings.

VI. Quorum

Four members of the Executive Board shall constitute a quorum.

VII. Amendments to By-Laws

These By-Laws may be amended at any meeting of the Executive Board or at the Annual Meeting of the Auxiliary by a two-thirds vote of the members present, provided such amendments do not conflict with the spirit of the Constitution.

I ask you to please preserve this copy of Journal for further reference.

(Mrs. C. P.) Irene S. Corn, President.



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VOLUME XXX

January to December 1934

Compiled by Edgar A. Hines, Jr., B.S., M.A., M.S.,
M.D., Assistant Editor, Rochester, Minnesota

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RESOLUTIONS ON DEATH OF DR. PINCK-
NEY V. MIKELL, COLUMBIA, S. C.

(Continued from Page 238)

their best loved and valued members.

2. That the City and State have lost a representa-
tive citizen.

3. That these resolutions be spread upon the
minutes of our Society and that a copy be sent to
the family.

J. Richard Allison, Chairman.
Theo DuBose, Jr.
C. F. Williams.

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a rising vote.

Benj. Rubinowitz, Secretary.

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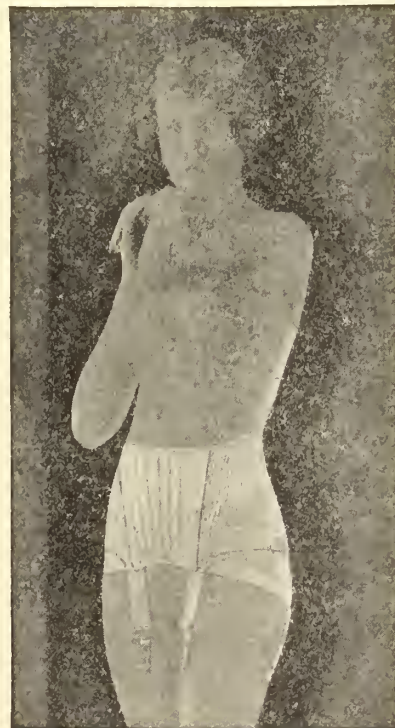
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